

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

1

5

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER 08/02/2018		2. CONTRACT NO. (If any) EP-C-17-044		6. SHIP TO:	
3. ORDER NO. 68HE0C18F0811		4. REQUISITION/REFERENCE NO. See Schedule		a. NAME OF CONSIGNEE AWPD-WB	
5. ISSUING OFFICE (Address correspondence to) CPOD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001				b. STREET ADDRESS US EPA-OW-OWOW-AWPD-WB 1200 PENNSYLVANIA AVE., NW MC-4503-T	
				c. CITY WASHINGTON	e. ZIP CODE 20460
7. TO: (b)(4)		f. SHIP VIA			
a. NAME OF CONTRACTOR CADMUS GROUP, INC., THE		8. TYPE OF ORDER			
b. COMPANY NAME		<input type="checkbox"/> a. PURCHASE REFERENCE YOUR:		<input checked="" type="checkbox"/> b. DELIVERY	
c. STREET ADDRESS 100 5TH AVENUE SUITE 100		Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.		Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
d. CITY WALTHAM	e. STATE MA	f. ZIP CODE 02451			
9. ACCOUNTING AND APPROPRIATION DATA See Schedule				10. REQUISITIONING OFFICE CPOD	

11. BUSINESS CLASSIFICATION (Check appropriate box(es))				12. F.O.B. POINT	
<input type="checkbox"/> a. SMALL	<input checked="" type="checkbox"/> b. OTHER THAN SMALL	<input type="checkbox"/> c. DISADVANTAGED	<input type="checkbox"/> d. WOMEN-OWNED	<input type="checkbox"/> e. HUBZone	
<input type="checkbox"/> f. SERVICE-DISABLED VETERAN-OWNED	<input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM	<input type="checkbox"/> h. EDWOSB			
13. PLACE OF		14. GOVERNMENT B/L NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) Multiple	
a. INSPECTION Destination	b. ACCEPTANCE Destination			16. DISCOUNT TERMS	

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: 101163731 TOCOR: Miranda Chien-Hale Max Expire Date: 07/31/2023 Invoice Approver: Miranda Chien-Hale Alt Invoice App: Don Waye Continued ...					

SEE BILLING INSTRUCTIONS ON REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOTAL (Cont. pages)
	21. MAIL INVOICE TO:						
	a. NAME RTP Finance Center						\$0.00
	b. STREET ADDRESS (or P.O. Box) US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts						
c. CITY Durham		d. STATE NC	e. ZIP CODE 27711		\$66,797.00		17(i) GRAND TOTAL

22. UNITED STATES OF
AMERICA BY (Signature)

08/02/2018

Kathleen Rechenberg

ELECTRONIC
SIGNATURE

23. NAME (Typed)
Kathleen Rechenberg
TITLE: CONTRACTING/ORDERING OFFICER

ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

PAGE NO
2

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER 08/02/2018	CONTRACT NO. EP-C-17-044	ORDER NO. 68HE0C18F0811
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ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
0001	<p>Admin Office: CPOD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268 Period of Performance: 08/02/2018 to 07/31/2019</p> <p>BASE PERIOD: Watershed Academy and Communications Support in accordance with the PWS Requisition No: PR-OW-18-00048, PR-OW-18-00344</p> <p>Delivery: 07/31/2019</p> <p>Accounting Info: 18-19-B-87FN-000BD4-2505-1887TE8018-00 1 BFY: 18 EFY: 19 Fund: B Budget Org: 87FN Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 1887TE8018-001 Funding Flag: Partial Funded: \$5,000.00</p> <p>Accounting Info: BFY: 00 Fund: ZERO Budget Org: DOLLAR Program (PRC): ADMIN Budget (BOC): REQ Funding Flag: Partial Funded: \$0.00</p> <p>Accounting Info: 18-19-B-87FN-000BD4-2505-1887TE8018-00 2 BFY: 18 EFY: 19 Fund: B Budget Org: 87FN Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 1887TE8018-002 Funding Flag: Partial Funded: \$41,797.00</p> <p>Accounting Info: 18-19-B-87FP-000BD4-2505-1887TE8018-00 3 BFY: 18 EFY: 19 Fund: B Budget Org: 87FP Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 1887TE8018-003 Funding Flag: Partial Funded: \$20,000.00</p> <p>Continued ...</p>					

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$0.00

ORDER FOR SUPPLIES OR SERVICES

SCHEDULE - CONTINUATION

PAGE NO
3

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER 08/02/2018	CONTRACT NO. EP-C-17-044	ORDER NO. 68HE0C18F0811
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ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
0002	OPTION PERIOD I: Watershed Academy and Communications Support in accordance with the PWS (Option Line Item) 180 Days After Award Delivery: 07/31/2020					
0003	OPTION PERIOD II: Watershed Academy and Communications Support in accordance with the PWS (Option Line Item) 180 Days After Award Delivery: 07/31/2020					
0004	OPTION PERIOD III: Watershed Academy and Communications Support in accordance with the PWS (Option Line Item) 180 Days After Award Delivery: 07/31/2020					
0005	OPTION PERIOD III: Watershed Academy and Communications Support in accordance with the PWS (Option Line Item) 180 Days After Award Delivery: 07/31/2020					

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$0.00

1552.217-71 OPTION TO EXTEND THE TERM OF THE CONTRACT-COST-TYPE CONTRACT (APR 1984)

The Government has the option to extend the term of this contract for four (4) additional period(s). If more than 60 days remain in the contract period of performance, the Government, without prior written notification, may exercise this option by issuing a contract modification. To exercise this option within the last 60 days of the period of performance, the Government must provide to the Contractor written notification prior to that last 60-days of the period. This preliminary notification does not commit the Government to exercising the option. Use of an option will result in the following contract modifications:

(a) The "Period of Performance" clause will be amended to cover a base period and option periods:

	Period Start Date	End Date
Base Period	Award	– 07/31/2019
Option Period 1	08/01/2019	– 07/31/2020
Option Period 2	08/01/2020	– 07/31/2021
Option Period 3	08/01/2021	– 07/31/2022
Option Period 4	08/01/2022	– 07/31/2023

(b) Paragraph (a) of the "Level of Effort" clause will be amended to reflect a new and separate level of effort of:

Period	Level of Effort
Base Period	770
Option Period 1	770
Option Period 2	770
Option Period 3	770
Option Period 4	770

(c) The "Estimated Cost and Fixed Fee" clause will be amended to reflect increased estimated costs and fixed fee for each option period as follows:

Period	Estimated Cost	Fixed Fee	Total CPFF
Option Period 1	(b)(4)		\$67,593
Option Period 2			\$68,669
Option Period 3			\$69,797
Option Period 4			\$71,075

(d) If the contract contains "not to exceed amounts" for elements of other direct costs (ODC), those amounts will be increased as follows: N/A

LOCAL CLAUSES EPA-B-32-101 LIMITATION OF FUNDS NOTICE

(a) Pursuant to the Limitation of Funds clause, incremental funding in the amount of \$(b)(4) is allotted to cover estimated cost. Funding in the amount of (b)(4) is provided to cover the corresponding increment of base fee. The amount allotted for costs is estimated to cover the contractor's performance through \$66,797.00.

(b) When the contract is fully funded (i.e. the sum of the total estimated cost, base fee, award fee pool available for award, and award fee awarded, as set forth in the schedule of this contract), the Limitation of Cost clause shall become applicable.

(c) Recapitulation of Funds

Base Period (Award -07/31/2019)

	Estimated Cost	Fixed Fee	Cost Plus Fixed Fee
Task Order Award (Base Period)	(b)(4)		\$66,797.00
Total Funded			\$66,797.00
Total Task Order			\$66,797.00
Balance Unfunded			\$0.00

LOCAL CLAUSE EPA-G-42-101 CONTRACT ADMINISTRATION REPRESENTATIVES

Task Order Contracting Officers Representatives (CORs)/Project Officers for this contract are as follows:

Task Order COR (TOCOR): Miranda Chien-Hale, chien-hale.miranda@epa.gov

Alternate Task Order COR (Alt TOCOR): Don Waye, waye.don@epa.gov

Contracting Officials responsible for administering this contract are as follows:

Katie Rechenberg, US EPA. Cincinnati Procurement Operations Division, NWD-001, Cincinnati, Ohio 45268

Rechenberg.kathleen@epa.gov

PERFORMANCE WORK STATEMENT
TSAWP-II Multiple-Award Contracts PR-OW-18-00048
Watershed Academy and Communications Support

A. BACKGROUND

This task order provides support for EPA's Watershed Academy (see www.epa.gov/watershedacademy) that has been a focal point in EPA for promoting implementation of watershed approaches since 1994. The task order will help support Watershed Academy webinar/webcast and live training as well as development of online Web-based modules and the preparation of other watershed-related outreach/tech transfer documents/multimedia products. Task Order support will also include providing communications support for other water/watershed related issues.

For the base period and each option period, the contractor shall carry out several tasks related to the development of training and outreach materials for the Watershed Academy and as well as other communications/outreach support activities to promote protection and restoration of watersheds. This task order includes activities of low to moderate technical complexity, involving transforming watershed science materials provided by the EPA Task Order Contracting Officer's Representative (TOCOR) into effective online training modules, live webinar/webcasts, training courses a pilot podcast series, general support for the Watershed Academy and related watershed communications activities. Key activities under this task order include:

- Kick off meeting at the beginning of the base period and the succeeding four option periods and communications during each of these periods.
- Maintaining and updating Website and online modules for the "Watershed Academy Web" which is an Oracle/Cold Fusion database (see www.epa.gov/watertrain)
- Developing/completing new Watershed Academy Web-based distance learning training modules;
- Developing a pilot podcast series;
- Conducting live Watershed Academy webinar/webcasts (see www.epa.gov/watershedwebcasts);
- General communications support for the Watershed Academy and other water/watershed topics;
- Contract support for live trainings and/or meetings

B. QUALITY ASSURANCE

1. Quality Assurance (QA) is an important component of EPA's work to assure that minimum quality standards are attained. The contractor shall follow the Quality Management Plan (QMP) that has been customized and incorporated into this TSAWP contract. In addition, the contractor shall document the processes for Quality Assurance that it will follow for the tasks under this Task Order. EPA policy requires that an approved Quality Assurance Project Plan (QAPP) be in place before any work

begins that involves the collection, generation, evaluation, analysis or use of environmental data. The work to be performed by the contractor under this task order involves such activities; therefore, in order to comply with this requirement:

1.1 – Within seven (7) business days after the kick-off meeting (Task 2.1), the contractor shall prepare and submit for EPA review a draft Quality Assurance Project Plan (QAPP) documenting how quality assurance (QA) and quality control (QC) will be applied to the generation, collection, evaluation, analysis and use of environmental data. EPA will review the contractor's draft QAPP and provide the Contractor with written approval or written comments. The contractor shall write the QAPP using the active voice. The QAPP shall provide enough detail to clearly describe objectives of the project supported by the task order; the type of data to be collected, generated, or used under this task order to support the project objectives; the quality objectives needed to ensure that these will support the project objectives; and the quality assurance and quality control activities to be performed to ensure that any results obtained are documented and are of the type, quality, transparency, and reproducibility needed.

The QAPP must be consistent with the guidance document, EPA Requirements for Quality Assurance Project Plans: EPA QA/R-5 (www.epa.gov/quality/qs-docs/r5-final.pdf).

1.2 – The contractor shall submit a revised QAPP within six (6) business days of receipt of the written comments on the draft QAPP, unless otherwise instructed by the EPA TOCOR. **Under no circumstances shall work that involves the generation, collection, evaluation, analysis, or use of environmental data be performed until the contractor receives written notification from the EPA TOCOR that EPA has approved the contractor's QAPP.** Any non-sampling/non-analytical work that involves the generation, collection, evaluation, analysis, or use of environmental data that is initiated prior to EPA approval of the contractor's QAPP must be performed in accordance with the approved QAPP. EPA may request the contractor to furnish written documentation from the Contractor showing that the contractor has complied with this requirement.

All QA documentation, including the QAPP, prepared under this Task Order, shall be considered non-proprietary, and shall be made available to the public upon request.

Additional QA Documentation Required

1.3 – In addition to the QAPP requirements described above, for all major deliverables produced by the contractor under this Task Order, a discussion of the QA/QC activities that were or will be performed to support the deliverable must accompany the deliverable. The contractor shall immediately notify the TOCOR of any QA problems encountered that may impact the performance of this Task Order, with recommendations for corrective action.

1.4 – The contractor also shall provide EPA with monthly status reports of QA-related activities performed during implementation of this Task Order. These monthly QA reports shall identify QA activities performed to support implementation of this Task Order, problems encountered, deviations from the QAPP, and corrective actions taken. If desired, the contractor may include this as a part of the contract-required monthly financial/technical progress report.

All written materials must be compliant with Section 508 of the Rehabilitation Act.

1.5 – If, during the Period of Performance of this Task Order, the TOCOR provides technical direction that revisions to the QAPP are determined to be necessary, the contractor shall submit a revised QAPP, including the revision summary, within seven (7) business days after receiving written technical direction to do so. When preparing this draft revised QAPP, the contractor shall ensure that it is written in an active voice, changes are presented in a track changes version of MS Word, and shall include a version history page that summarizes changes made. The contractor also shall provide EPA with copies of any modified SOPs or checklists. EPA will review the draft revised QAPP and provide the contractor with written approval or comments. The contractor shall provide a final QAPP that responds to EPA’s written comments within six (6) business days of receipt of EPA’s comments on the draft revised QAPP.

2.0-New online modules and podcasts must go through a peer review process. The TOCOR will identify a minimum of three peer reviewers (i.e., EPA HQ/Regional staff, state staff or other non-contractor technical experts) who will review each new online module or podcast. The contractor shall incorporate peer review comments that are straight-forward and will identify remaining comments where the TOCOR’s input is needed to address the comments. The contractor shall work with the TOCOR to ensure that all comments are addressed and incorporated into the final module, as appropriate.

Online modules may be translated into Spanish as part of this task order. Modules that are translated into Spanish will also need to be peer reviewed to verify that the translation is accurate. Peer review comments on translations will need to be addressed and incorporated into final modules, as appropriate.

3.0-The TOCOR will choose Webcast speakers who are knowledgeable about the specific Webcast topics and ensure that PowerPoint slides are reviewed by EPA staff for technical accuracy prior to Webcasts. In addition, Webcast participants can submit questions during the Webcast. Also, there will always be an evaluation form for each Webcast. These are two mechanisms for the public to provide feedback on the quality of the Webcast materials. Webcasts are archived and the contractor shall make corrections to the archives, as needed, to correct technical information presented. Finally, the following disclaimer will continue to be included on Webcast flyers and shared at the introduction of each Webcast:

“The materials in this Webcast have been reviewed by EPA staff for technical accuracy. However, the views of the speakers and the speakers’ organizations are their own and do not necessarily reflect those of EPA. Mention of commercial enterprises, products, or publications does not mean that EPA endorses them.”

In addition, for any live training course conducted under this task, trainers should be knowledgeable about the specific topics covered and the TOCOR should ensure that PowerPoint slides and other training materials are reviewed by EPA staff for technical accuracy prior to the live training course. In addition, there should always be an evaluation form for each live training course and an opportunity for participants to ask questions during the training. These are two

mechanisms for the participants to provide feedback on the quality of the training course and its materials.

4.0-The TOCOR will work carefully to ensure that webinar/webcasts speakers are knowledgeable about the specific EPA Internet Tools or other watershed-related topics to be covered in each webinar/webcasts. PowerPoint slides used as part of webinar/webcast will be reviewed by EPA staff for technical accuracy prior to the webinar/webcast. In addition, when the contractor is presenting a webinar/webcast on an Internet tool, the contractor shall prepare an annotated outline with screen shots of information to be presented in the webinar/webcast and this outline will be reviewed by the TOCOR and appropriate EPA staff. This review will be used to ensure technical accuracy prior to the webinar/webcast and to make sure that important/new aspects of the application are presented in the webinar/webcast. Webinar/webcast participants are also able to submit questions during the webinar/webcast and this provides a mechanism for the public to provide feedback on the quality of the webinar/webcast materials. In addition, the contractor shall prepare an evaluation form at the end of each webinar/webcast for participants to provide feedback on the webinar/webcast. Webinar/webcast are archived and the contractor shall make corrections to the archives, as needed, to correct technical information presented. Finally, the following disclaimer will continue to be included on webinar/webcast flyers and shared at the introduction of each webinar/webcast:

“The materials in this webcast have been reviewed by EPA staff for technical accuracy. However, the views of the speakers and the speakers’ organizations are their own and do not necessarily reflect those of EPA. Mention of commercial enterprises, products, or publications does not imply that EPA endorses them.”

–5.0-The contractor provides technical, editorial and graphic support under this task for a wide variety of products including:

Technical, editorial, graphic support and a limited number of copies of the Watershed Academy or other Agency publications and developing or assisting in completing draft/final products including: Websites, educational signage/posters/displays, fact sheets, briefing materials, reports, and multi-media products such as online videos, CDs, DVDs, or other products.

–6.0-The contractor shall provide a brief final report on the status of all benchmarks, deliverables and milestones after the Base Period and each subsequent Option Period. This final report will identify any QA issues, if any.

Services and agreed upon deliverables shall be prepared in accordance with the schedules indicated below for each task and in accordance with QA outlined in the task order. The contractor shall revise any draft products in response to EPA’s or peer reviewers (or other processes specific in the TO), in response to written technical direction by the TOCOR.

C. TASKS

TASK 1: Kickoff Meeting, Reporting and Communication

The contractor shall participate in a Kickoff Meeting with the EPA Task Order Contracting Officer Representative (TOCOR) either in person or via conference call to discuss the following: points of contact, roles and responsibilities, Quality Assurance protocols, timelines, the schedule of benchmarks, milestones and deliverables, establish dates and time for monthly calls, and monthly technical progress reports and general Task Order administrative information.

The contractor shall submit a Quality Assurance Project Plan (QAPP) to the EPA TOCOR prior to the kickoff meeting. The QAPP shall include any Standard Operating Procedures that are relevant to the tasks in the task order. Specifically, the contractor shall include the Quality Assurance Tasks listed in Section B. above in the Draft QAPP. The EPA TOCOR will review the Draft QAPP and provide written feedback to the contractor. The contractor shall prepare a final QAPP incorporating comments and provide the final QAPP to the EPA TOCOR. At the kick off meeting in each subsequent Option periods, QA/QC issues from the previous option period will be discussed, as appropriate, and the contractor shall document any revisions to the QA processes in a revised QAPP and submit the revised QAPP to the EPA TOCOR for EPA review and approval. Any quality assurance documents prepared under this task order are not proprietary and may be made publicly available.

The EPA TOCOR will coordinate and set-up monthly working calls between EPA staff and the contractor's technical lead to discuss the status and progress of the work under this Task Order. The contractor shall participate in these monthly calls. The frequency of the monthly conference calls may be modified based on project status at the request of the contractor and only as approved by EPA. Generally, the contractor shall provide meeting summaries after the monthly calls within five (5) business days in draft form for the TOCOR to review, the TOCOR will provide any edits and/or comments on the meeting minutes; then final written meeting summaries shall be provided within five (5) business days after receipt of comments from the TOCOR. Meeting summaries should include a spreadsheet showing the amount of funds spent on a particular task and projected additional funds needed, and should include annotated notes, as needed.

The contractor shall notify the EPA TOCOR of any problems, delays or questions as soon as they arise, including immediate notification of any quality assurance issues, and Task Order delays. The contractor shall provide a monthly progress report in accordance with contract requirements which will be used for invoice review purposes. All reporting shall be provided in accordance with Contract Level PWS Sections G & H: **Reporting and Deliverables (General Performance)**.

Task 1 Deliverables:

- Draft Quality Assurance Project Plan (QAPP) for EPA review and approval
- Final Quality Assurance Project Plan (QAPP) for EPA approval (revised QAPP, if any in subsequent option periods)
- Monthly conference calls and meeting minutes
- Immediate notification to TOCOR of any delays,

- Monthly progress reports and
- Timely Communication

See Contract Level “Surveillance Plan” for specific performance standards and indicators related to this Task. All written materials must be compliance with Section 508 of the Americans with Disabilities Act.

TASK 2: Provide Maintenance of Watershed Academy Web Database and Development of New Modules and a Pilot Podcast Series

EPA’s Watershed Academy Web, an online training program on watershed management, at www.epa.gov/watertrain, was updated and put into a Cold Fusion/Oracle database in 2007. This database was built to house the Watershed Academy Web and its approximately 50 online Web modules. This new database was posted on the EPA server in 2010. The contractor shall provide maintenance for updating of the Watershed Academy Web, per written technical direction for the Base period and each Option Period. Examples of maintenance/updating tasks include: assisting with updates (e.g., fixing dead links, making text corrections, etc.) of the content in the database and migrating these updates to the EPA server; editing/updating existing modules or other aspects of the database; modifying templates for new training module formats; preparing Spanish translations of online modules (see QA procedures on page 2 of this task order to be followed for any translations of online modules); and assisting with the development of new learning materials in the form of modules or a podcast series. The Website shall comply with all EPA Web standards posted at: <http://yosemite.epa.gov/oei/webguide.nsf/standards-guidance>.

The contractor shall develop or complete Web-based training modules for the database on specific topics identified by the TOCOR in the Base Period and for each Option Period. The number of modules to be developed is to be determined. The contractor shall review and improve these modules as deemed necessary and appropriate by such means as conducting a technical peer review, modifying the text and/or graphics, posting on the contractor’s Internet server, and assisting with loading the modules to the database on the EPA server.

Regarding the peer review process, the TOCOR will identify a minimum three peer reviewers (i.e., EPA HQ/Regional staff, state staff or other non-contractor technical experts) who will review each new online module. The contractor shall incorporate peer review comments that are straight-forward and shall identify remaining comments where the TOCOR’s input is needed to address the comments. The contractor shall work with the TOCOR to ensure that all comments are addressed and incorporated into the final module, as appropriate.

Each of the modules shall be delivered (i.e. made available on the contractor’s Website) incrementally as they are developed, in a minimum of two (2) draft versions for each module. The first draft shall be complete and Web-accessible but as-yet un-reviewed by TOCOR or external reviewers; the second and/or final draft shall have incorporated editorial feedback from the TOCOR and peer reviewers, and shall be a reviewed, high quality draft Website for easy finalization on the EPA Website. The contractor shall also develop a PDF version of each of the two Web modules that is easy to download with a single command.

The contractor shall develop or complete a podcast series on specific topics identified by the TOCOR in the Base Period and for each Option Period. The number of episodes to be developed is to be determined. The contractor shall create, review and improve these episodes as deemed necessary and appropriate by such means as conducting a technical peer review, modifying the sound bites, posting on the contractor's Internet server, and assisting with loading the series to the database on the EPA server.

Regarding the peer review process, the TOCOR will identify a minimum three peer reviewers (i.e., EPA HQ/Regional staff, state staff or other non-contractor technical experts) who will review each script. The contractor shall incorporate peer review comments that are straight-forward and shall identify remaining comments where the TOCOR's input is needed to address the comments. The contractor shall work with the TOCOR to ensure that all comments are addressed and incorporated into the final format, as appropriate.

Examples of possible modules or podcasts to be developed or updated include:

- **“Key EPA Internet Tools for Watershed Protection”** - Contractor assistance is needed to complete the development of an online module on this topic building on an earlier live training course and online materials that are posted at http://water.epa.gov/learn/training/wacademy/epatools_index.cfm. To prepare the draft online module, contractor assistance will be needed to prepare PowerPoint slides plus notes on key EPA Internet Tools for watershed protection, and then work with the EPA TOCOR to conduct technical peer review, incorporate peer review comments and assist with adding it to the Watershed Academy Web Cold Fusion, Oracle database that is posted on EPA's server.
- **Other modules** related to EPA's monitoring, TMDL/watershed, nonpoint source, stormwater, wetlands, oceans, climate change, urban watershed issues, smart growth, capacity building issues, and other watershed-related topics.
- **“Voices of the Clean Water Act”** – Contractor assistance is needed to complete the development of an online audio podcast pilot series. To prepare for this series, contract assistance will be needed to work with EPA to solicit and capture audio recordings of people across the country, and then to edit and produce audio stories to be posted online.

The contractor shall have experience in building/maintaining modules in Adobe Captivate and recording/editing audio tracks in Hindenburg or a similar software. The contractors should also be familiar with Cold Fusion/Oracle and Articulate in order to make updates to past materials.

TASK 3: - Support for Live Webcasts and Trainings

Watershed Academy has conducted 94 Watershed Academy Webcasts since 2005 on a wide range of watershed/water topics (for more background on Webcasts see www.epa.gov/watershedwebcasts). Webcasts are typically conducted at 1:00pm to 3:00pm EST on week days. Attendees must register online in advance to participate in Webcasts. During the Webcasts, trainees log onto the Web to participate in live training conducted by expert instructors. Participant computers must have the capability of playing sound in order to attend the Webcasts. In advance of webcasts, EPA posts PDF copies of the PowerPoint slides on the

Website for participants to download. EPA's Watershed Academy also now offers a downloadable certificate to those that attend webcasts. For those that are not able to register for a Webcast, a streaming audio version of the training is made available after the live seminar and posted on the Web at www.epa.gov/watershedwebcasts.

Under this task the contractor shall provide assistance for at least four Webcasts annually using a Webcast platform that is able to accommodate a large number of attendees, **including up to 2,000 attendees**. The contractor shall provide logistical support for Webcasts, the streaming audio for the Webcast, and archiving of the Webcasts as identified below. The contractor shall assist with the delivery of each Webcast as requested by the TOCOR.

The contractor shall provide the following logistical support for Webcasts including the following:

- Coordinating Webcast presentations with presenters including letting them know the deadlines for submitting Webcast presentations and other related materials;
- Providing travel support for up to one (1) Webcast presenter (e.g., technical expert, state agency staff person) to travel to Washington, DC to conduct their Webcast, as requested by the TOCOR via technical direction. Note: If the technical expert presenter is not able to pay for their travel expenses, the contractor shall pay their travel expenses as a subcontractor employee. The contractor shall employ or contract with the presenter(s) in order for the travel expenses to be approved and paid for. Travel expenses shall only be paid to the individuals performing a direct function of the contract. The contractor may not pay for travel for federal government employees.
- Preparing a 1-page flyer to publicize each Webcast, as needed;
- Preparing a list of "additional resources" for each Webcast related to each Webcast topic, as needed;
- Preparing a "certificate" for posting on the Web so that participants can download the certificate after the training;
- Preparing an evaluation form to use at the end of each Webcast and assisting with preparation of polling questions to use during the Webcast;
- Assisting with formatting and editing of Webcast presentations (e.g. adding introductory and question slides, removing animation and talking points, compressing slides and fixing other formatting problems);
- Providing a final PowerPoint file and PDF copy of the Webcast presentation;
- Answering email and phone questions related to the Webcasts;
- Preparing a draft "script" for moderators to use during the Webcasts to introduce and close the Webcasts and for the Q/A sessions and polling questions and serving as moderator, as needed.
- Conducting all or a portion of up to two (2) Webcasts including preparing and presenting PowerPoint presentation on topics such as the "ABCs of TMDLs or other topics, as requested by the TOCOR; and
- Assisting with follow-up activities after the Webcast such as summarizing number of Webcast attendees and polling data, and reviewing the closed captioning/archives for the Webcasts.

The contractor shall provide the following support for Streaming Audio Webcasts including the following tasks:

- The Webcast platform used by the contractor shall be able to accommodate a large number of attendees, including **up to 2,000 attendees**. The contractor shall set up a customized Webcast registration page with the EPA and Watershed Academy logos and information on the Webcast and the speakers. Contractor shall also provide a Webcast platform that includes an “audience view” of Webcast materials for participants including copies of the PowerPoint presentations, additional information such as speaker photos, PDF copies of PowerPoint presentations, live questions and answers, polling capabilities, feedback form, closed captioning during Webcasts, link to list of additional resources and certificate for Webcast;
- Conducting the live broadcast with synchronized slides and audio, including monitoring the audio and visual quality of the feeds throughout the broadcast;
- Providing certain features during the live Webcast, including: phone bridge for speaker participation from the DC area as well as other locations in the U.S., automatic slide advancement, instant polling, trouble shooting of participant problems, and live speaker chat.

Archiving Webcasts for Web:

- The contractor shall archive the Webcasts and save them in a format that is section 508 compliant, including closed captioning done during each Webcast, that EPA can use for posting on EPA’s Website.
- The contractor will provide to EPA copies of archived webcasts in an appropriate format that can be edited

Contractor support for live training shall include, as needed: designing course visuals and graphics; writing course talking points; developing a wide variety of course materials for exercises and handouts; storyboarding course organization and flow; providing technical speakers or presenters at the TOCOR’s request; meeting with the TOCOR to plan and develop materials; providing logistical meeting support for training events including room/computer rentals; supporting travel of trainers to locations where training is delivered; developing train-the-trainer materials; and preparing/summarizing course evaluation forms. The end products envisioned for this part of the task are revisions and new additions to training packages (instructors’ manual, visuals and trainee materials) for live 2-hour to 5-day training sessions. Live training may be done onsite or through the use of webinar/webcasts.

Task 4: Support for Webinar/Webcast on Water-Related Topics

The contractor shall provide support for Watershed Academy Webcasts that are delivered using webinar/webcast technology such as AdobeConnect, Live meeting or similar online webinar/webcast technology. The contractor shall work with the TOCOR to develop up to eight (8) webinar/webcasts to educate states, EPA Regions, local watershed groups and other

stakeholders on the application and use of key EPA Internet-based watershed tools, as well as other watershed/water-related topics. The contractor shall use a collaboration tool (e.g., AdobeConnect, Live meeting or similar online webinar/webcast technology) for these webinar/webcasts. The webinar/webcasts shall demonstrate how to use key EPA Internet tools in an interactive seminar. Webinar/webcasts have the advantage of being able to demonstrate Internet tools in real-time. In addition, webinar/webcasts will also be used to present just PowerPoint presentations on key watershed/water-related topics as identified by the TOCOR.

These webinar/webcasts shall be approximately 1 ½ to 2 hours in length. Some will be presented by the contractor based on materials in the previously developed live course entitled **Key EPA Internet-Based Tools for Watershed Management** (see

http://water.epa.gov/learn/training/wacademy/epatools_index.cfm)

The following are example Internet tools that shall be covered in the webinar/webcasts: Watershed Central/Wiki; Nonpoint Source Outreach Toolbox; How's My Waterway; ATTAINS; StreamCat; Recovery Potential Screen Tool and any other tools as requested by the TOCOR through technical direction. The webinar/webcasts will also cover other watershed/water-related topics as identified by the TOCOR.

The contractor shall work with the TOCOR and the EPA lead for each of the tools/topics to make sure that the most up-to-date features/information are demonstrated in the webinar/webcasts. The EPA TOCOR, Alternate TOCOR if the TOCOR is on leave or travel, the PO or the CO are the only individuals authorized to provide technical direction. The EPA lead, if not one of the individuals identified above, may engage in technical communications, but may not issue technical direction. For each of the webinar/webcasts, the contractor shall assist in setting up the webinar/webcast, preparing the course materials, incorporating comments from EPA TOCOR prior to the Webinar/webcast, in some cases actually present the information and answering questions from the audience during the webinar/webcast. The contractor shall provide a recording of the webinar/webcast in MP4 format and including a transcript so that the webinar/webcasts can be posted on the Watershed Academy Website.

The contractor shall use a similar approach to the development and conduct of the webinar/webcasts as identified for Webcasts in Task 2, including the following:

The contractor shall provide the following logistical support for webinar/webcasts including the following:

- Collaborating with the TOCOR to identify the key EPA watershed Internet tools or other water/watershed-related topics to highlight in each webinar/webcast. Where the contractor is presenting all or a portion of the webinar/webcast they shall work to insure that new aspects of Internet tools are highlighted appropriately by sharing a draft **annotated outline of the webinar/webcast** with screen shots in advance for review by the TOCOR and key EPA staff identified for each of the Web tools
- Providing travel support for up to one (1) webinar/webcast presenter (e.g., technical expert, state agency staff person) to travel to Washington, DC to conduct their webinar/webcast, as requested by the TOCOR via technical direction. Note: If the technical expert presenter is not able to pay for their travel expenses, the contractor shall

pay their travel expenses as a subcontractor employee. The contractor shall employ or contract with the presenter(s) in order for the travel expenses to be approved and paid for. Travel expenses shall only be paid to the individuals performing a direct function of the contract. The contractor may not pay for travel for federal government employees.

- Preparing a **1-page flyer** to publicize each webinar/webcast, as needed.
- Preparing necessary **PowerPoint presentations** which may be component of the webinar/webcast. The contractor shall assist with formatting of Webcast presentations (e.g. preparing introductory and question slides, talking points, compressing slides, etc.);
- Providing a final **PowerPoint file and notes for each webinar/webcast**.
- Answering email and phone questions related to the webinar/webcasts;
- Preparing a standardized draft “**script**” for **moderators** to use during the Webcasts to introduce and close the Webinar/webcasts.
- Assisting with preparation, development, and delivery of webinar/webcasts to explain the water/watershed-related topics, and providing a transcript (or closed captioning, should technology allow) of the Webinar/webcast.
- Assisting with follow-up activities after the Webcast such as summarizing number of webinar/webcast attendees and reviewing the archives/transcript of the webinar/webcasts.

The contractor shall provide the following support for conducting the Webinar/webcasts including the following:

- Assisting with opening registration for the webinar/webcast.
- Ordering transcription of the webinar/webcasts so that transcripts of webinar/webcasts can be posted on EPA’s server after the webinar/webcast to make it section 508 compliant. The TOCOR may also request the contractor to provide closed captioning for webinar/webcasts as well.
- Assisting with the conduct of the webinar/webcast including trouble shooting of participant problems with live chat/question/answer system.

Archiving Webinar/webcasts for Web

- The contractor shall be responsible for archiving the webinar/webcasts. The contractor will provide a written transcript of each webinar/webcast that EPA can use for posting on EPA’s website.
- The contractor shall also provide an MP4 version (or another format) of each of the webinar/webcasts suitable for posting on the EPA server.

TASK 5: General Communications Support for Watershed Academy and Other Water Topics

The contractor shall provide general support for other communications work related to the Watershed Academy and other water/watershed topics. This editorial/technical/communications support is often needed on a quick turnaround basis as requested by the TOCOR through technical direction. The following are the types of activities where contractor support may be needed:

- Providing technical, editorial, and graphic support for developing and completing draft/final products including: Websites, educational signage/posters/displays, fact sheets, briefing materials, reports, and multi-media products such as online videos, CDs, DVDs, Beta SP, and Digibeta tapes, or other products. Contractor shall also provide a limited number of copies of Watershed Academy and other Agency publications for limited distribution, within the printing limits of the contract.
- Identifying key messages for products, conducting focus groups, and marketing new products.
- Technical, editorial, graphic or logistical support for the Watershed Academy and other EPA water-related programs including:
 - Assistance in preparing materials for the Watershed Academy Web and/or Webcasts; and assisting with marketing the Watershed Academy through the development of posters, presentations, flyers and other means.
- Logistical support for meetings/training courses (e.g., provision of meeting rooms, facilitators, notetaking, registration, etc.) as requested by the TOCOR.

TASK 6: Brief Final Report on Task Order

The contractor shall provide a brief final report on the status of all benchmarks, deliverables and milestones after the Base Period and each subsequent Option Period. This final report will identify any QA issues, if any.

D. SCHEDULE OF BENCHMARKS, DELIVERABLES & MILESTONES

Award – 9/30/2018		
TASK	BENCHMARKS/DELIVERABLES/ MILESTONES	SCHEDULE
1	Kickoff Meeting	Within 10 business days of start of Task Order Award
1	Draft Quality Assurance Project Plan (QAPP) for EPA review and approval	Within 10 business days after Kickoff Meeting
1	Final Quality Assurance Project Plan (QAPP) for EPA approval	Within 5 business days after receiving of comments from the TOCOR

1	Monthly Conference Calls and Meeting Minutes, Monthly Progress Reports and immediate notification of TOCOR of any delays.	Draft within 5 business days Final within 5 business days after receiving of comments from the TOCOR; immediate notification of any delays
1	Contractor identifies any issues with QA procedures and provides revised QA procedures.	Within 5 business days of discussing QA issues at a kickoff meeting or monthly conference call
2	Provide continued support for editing/updating Watershed Academy Web database and modules.	Within 10 - 20 working days of receiving written technical direction from the TOCOR.
2	Develop at up to (2) new modules/podcast episodes and assist with posting in the database on the EPA server.	Within 10 - 20 working days of receiving written technical direction from the TOCOR.
3	Deliver at up to (4) Webcasts including providing logistical support and streaming audio, as indicated above.	Within 30 days after a technical direction is issued by the TOCOR.
3	Deliver archived versions of each seminar including audio files and PowerPoint slides along with the closed captioning (to comply with section 508 requirements) for posting on the Web). Deliver Webcasts in archived format (including closed captioning) and MP4 or other format.	Within 10 working days of a completed Webcast.
3	Provide support for up to 1-2 live Watershed Academy courses.	Within 10 - 20 working days of receiving written technical direction from the TOCOR.
4	Deliver up to four (4) webinar/webcasts on key EPA Internet tools and other water/watershed-related topics including sometimes conducting the webinar/webcast –and providing logistical support for the webinar/webcast, as indicated above.	Within 30 days after a technical direction is issued by the TOCOR.
4	Deliver archived versions of each webinar/webcast seminar including audio and screen files along with the written transcript (to comply with section 508 requirements) for posting on the Web, if technology allows. Deliver copies of webinar/webcasts in MP4 format, including the written transcript of the webinar/webcast.	Within 10 working days of a completed webinar/webcast.

5	General support (technical/editorial/ graphic support) for the Watershed Academy and other water-related programs products.	Within 10 - 20 working days after a technical direction issued by the TOCOR.
6	Brief draft final report on status of each of the above tasks.	Generally, within 10 business days after receipt of written technical direction from the TOCOR.
6	Brief final report on status of each of the above tasks, which incorporates feedback from the TOCOR.	Generally within 10 business days after receipt of written technical direction from the TOCOR.

	BEGIN OPTION PERIOD ONE 10/01/2018 – 9/30/2019	12 months
TASK	BENCHMARKS/DELIVERABLES/ MILESTONES	SCHEDULE
1	Kickoff Meeting	Within 10 business days of start of Task Order Award
1	Monthly Conference Calls and Meeting Minutes, Monthly Progress Reports and immediate notification of TOCOR of any delays.	Draft within 5 business days Final within 5 business days after receiving of comments from the TOCOR; immediate notification of delays
1	Contractor identifies any issues with QA procedures and provides revised QA procedures, or revised Quality Assurance Project Plan (QAPP) for EPA review and approval.	Within 5 business days of discussing QA issues at a kickoff meeting or monthly conference call.
2	Provide continued support for editing/updating Watershed Academy Web database and modules.	Within 10 - 20 working days of receiving written technical direction from the TOCOR.
2	Develop at least two (2) new modules/podcast episodes and assist with posting in the database on the EPA server.	Within 10 - 20 working days of receiving written technical direction from the TOCOR.
3	Deliver at least four (4) Webcasts including providing logistical support and streaming audio, as indicated above.	Within 30 days after a technical direction is issued by the TOCOR.

3	Deliver archived versions of each seminar including audio files and PowerPoint slides along with the closed captioning (to comply with section 508 requirements) for posting on the Web). Deliver Webcasts in archived format (including closed captioning) and MP4 or other format.	Within 10 working days of a completed Webcast.
3	Provide support for 1-2 live Watershed Academy courses.	Within 10 - 20 working days of receiving written technical direction from the TOCOR.
4	Deliver up to (4) webinar/webcasts on key EPA Internet tools and other water/watershed-related topics including sometimes conducting the webinar/webcast –and providing logistical support for the webinar/webcast, as indicated above.	Within 30 days after a technical direction is issued by the TOCOR.
4	Deliver archived versions of each seminar including audio files and PowerPoint slides along with the closed captioning (to comply with section 508 requirements) for posting on the Web). Deliver Webcasts in archived format (including closed captioning) and MP4 or other format.	Within 10 working days of a completed Webinar/webcast.
5	General support (technical/editorial/ graphic support) for the Watershed Academy and other water-related programs products.	Within 10 - 20 working days after a technical direction issued by the TOCOR.
6	Brief draft final report on status of each of the above tasks.	Generally within 10 business days after receipt of written technical direction from the TOCOR.
7	Brief final report on status of each of the above tasks, which incorporates feedback from the TOCOR.	Generally within 10 business days after receipt of written technical direction from the TOCOR.

	BEGIN OPTION PERIOD TWO 10/1/2019-9/30/2020	12 months
TASK	BENCHMARKS/DELIVERABLES/ MILESTONES	SCHEDULE
1	Kickoff Meeting	Within 10 business days of start of Task Order Award

1	Monthly Conference Calls and Meeting Minutes, Monthly Progress Reports and immediate notification of TOCOR of any delays.	Draft within 5 business days Final within 5 business days after receiving of comments from the TOCOR; immediate notification of delays
1	Contractor identifies any issues with QA procedures and provides revised QA procedures, or revised Quality Assurance Project Plan (QAPP) for EPA review and approval.	Within 5 business days of discussing QA issues at a kickoff meeting or monthly conference call.
2	Provide continued support for editing/updating Watershed Academy Web database and modules.	Within 10 - 20 working days of receiving written technical direction from the TOCOR.
2	Develop at least two (2) new modules/podcast episodes and assist with posting in the database on the EPA server.	Within 10 - 20 working days of receiving written technical direction from the TOCOR.
3	Deliver at least four (4) Webcasts including providing logistical support and streaming audio, as indicated above.	Within 30 days after a technical direction is issued by the TOCOR.
3	Deliver archived versions of each seminar including audio files and PowerPoint slides along with the closed captioning (to comply with section 508 requirements) for posting on the Web). Deliver Webcasts in archived format (including closed captioning) and MP4 or other format.	Within 10 working days of a completed Webcast.
3	Provide support for 1-2 live Watershed Academy courses.	Within 10 - 20 working days of receiving written technical direction from the TOCOR.
4	Deliver up to four (4) webinar/webcasts on key EPA Internet tools and other water/watershed-related topics including sometimes conducting the webinar/webcast –and providing logistical support for the webinar/webcast, as indicated above.	Within 30 days after a technical direction is issued by the TOCOR.
4	Deliver archived versions of each seminar including audio files and PowerPoint slides along with the closed captioning (to comply with section 508 requirements) for posting on the Web). Deliver Webcasts in archived format (including closed captioning) and MP4 or other format.	Within 10 working days of a completed Webinar/webcast.

5	General support (technical/editorial/ graphic support) for the Watershed Academy and other water-related programs products.	Within 10 - 20 working days after a technical direction issued by the TOCOR.
6	Brief draft final report on status of each of the above tasks.	Generally within 10 business days after receipt of written technical direction from the TOCOR.
6	Brief final report on status of each of the above tasks, which incorporates feedback from the TOCOR.	Generally within 10 business days after receipt of written technical direction from the TOCOR.

	BEGIN OPTION PERIOD THREE 10/1/2020 - 9/30/2021	12 MONTHS
TASK	BENCHMARKS/DELIVERABLES/ MILESTONES	SCHEDULE
1	Kickoff Meeting	Within 10 business days of start of Task Order Award
1	Monthly Conference Calls and Meeting Minutes, Monthly Progress Reports and immediate notification of TOCOR of any delays.	Draft within 5 business days Final within 5 business days after receiving of comments from the TOCOR; immediate notification of delays
1	Contractor identifies any issues with QA procedures and provides revised QA procedures, or revised Quality Assurance Project Plan (QAPP) for EPA review and approval.	Within 5 business days of discussing QA issues at a kickoff meeting or monthly conference call.
2	Provide continued support for editing/updating Watershed Academy Web database and modules.	Within 10 - 20 working days of receiving written technical direction from the TOCOR.
2	Develop at least (2) new modules/podcast episodes and assist with posting in the database on the EPA server.	Within 10 - 20 working days of receiving written technical direction from the TOCOR.
3	Deliver at least four (4) Webcasts including providing logistical support and streaming audio, as indicated above.	Within 30 days after a technical direction is issued by the TOCOR.

3	Deliver archived versions of each seminar including audio files and PowerPoint slides along with the closed captioning (to comply with section 508 requirements) for posting on the Web). Deliver Webcasts in archived format (including closed captioning) and MP4 or other format.	Within 10 working days of a completed Webcast.
3	Provide support for 1-2 live Watershed Academy courses.	Within 10 - 20 working days of receiving written technical direction from the TOCOR.
4	Deliver up to four (4) webinar/webcasts on key EPA Internet tools and other water/watershed-related topics including sometimes conducting the webinar/webcast –and providing logistical support for the webinar/webcast, as indicated above.	Within 30 days after a technical direction is issued by the TOCOR.
4	Deliver archived versions of each seminar including audio files and PowerPoint slides along with the closed captioning (to comply with section 508 requirements) for posting on the Web). Deliver Webcasts in archived format (including closed captioning) and MP4 or other format.	Within 10 working days of a completed Webinar/webcast.
5	General support (technical/editorial/ graphic support) for the Watershed Academy and other water-related programs products.	Within 10 - 20 working days after a technical direction issued by the TOCOR.
6	Brief draft final report on status of each of the above tasks.	Generally within 10 business days after receipt of written technical direction from the TOCOR.
6	Brief final report on status of each of the above tasks, which incorporates feedback from the TOCOR.	Generally within 10 business days after receipt of written technical direction from the TOCOR.

	BEGIN OPTION PERIOD FOUR 10/1/2021 – 9/30/2022	12 months
TASK	BENCHMARKS/DELIVERABLES/ MILESTONES	SCHEDULE
1	Kickoff Meeting	Within 10 business days of start of Task Order Award

1	Monthly Conference Calls and Meeting Minutes, Monthly Progress Reports and immediate notification of TOCOR of any delays.	Draft within 5 business days Final within 5 business days after receiving of comments from the TOCOR; immediate notification of delays
1	Contractor identifies any issues with QA procedures and provides revised QA procedures, or revised Quality Assurance Project Plan (QAPP) for EPA review and approval.	Within 5 business days of discussing QA issues at a kickoff meeting or monthly conference call.
2	Provide continued support for editing/updating Watershed Academy Web database and modules.	Within 10 - 20 working days of receiving written technical direction from the TOCOR.
2	Develop at least two (2) new modules/podcast episodes and assist with posting in the database on the EPA server.	Within 10 - 20 working days of receiving written technical direction from the TOCOR.
3	Deliver at least four (4) Webcasts including providing logistical support and streaming audio, as indicated above.	Within 30 days after a technical direction is issued by the TOCOR.
3	Deliver archived versions of each seminar including audio files and PowerPoint slides along with the closed captioning (to comply with section 508 requirements) for posting on the Web).	Within 10 working days of a completed Webcast.
3	Provide support for 1-2 live Watershed Academy courses.	Within 10 - 20 working days of receiving written technical direction from the TOCOR.
4	Deliver up to four (4) webinar/webcasts on key EPA Internet tools and other water/watershed-related topics including sometimes conducting the webinar/webcast –and providing logistical support for the webinar/webcast, as indicated above.	Within 30 days after a technical direction is issued by the TOCOR.
4	Deliver archived versions of each seminar including audio files and PowerPoint slides along with the closed captioning (to comply with section 508 requirements) for posting on the Web). Deliver Webcasts in archived format (including closed captioning) and MP4 or other format.	Within 10 working days of a completed Webinar/webcast.
5	General support (technical/editorial/ graphic support) for the Watershed Academy and other water-related programs products.	Within 10 - 20 working days after a technical direction issued by the TOCOR.

		–6 months after Period Exercised:
6	Brief draft final report on status of each of the above tasks.	Generally within 10 business days after receipt of written technical direction from the TOCOR.
6	Brief final report on status of each of the above tasks, which incorporates feedback from the TOCOR.	Generally within 10 business days after receipt of written technical direction from the TOCOR.

When the Task Order reaches 30 calendar days prior to the end of the Period of Performance in a given period, the contractor shall make a determination that the deliverables, milestones, benchmarks, and any outstanding technical direction from the TOCOR, will be satisfactorily completed in the form requested in the PWS by the end of the Period of Performance and for the remaining funding that is available.

If the contractor determines one or more of the above-referenced items will not be able to be completed in the requested form within the period of performance and with the available funding, the contractor shall notify the TOCOR and the CO immediately. Within 5 business days of said notification, the TOCOR in coordination with the CO will provide technical direction concerning use of the remaining funding to prepare and furnish to the TOCOR all interim draft deliverables, interim work products, and any working files in an electronic format which is supported by EPA, for eventual continuation of the project after the end date of the Task Order.

E. REPORTING

All documentation and reporting under this Task Order shall be in compliance with contract requirements.

F. DELIVERABLES AND GENERAL PERFORMANCE:

The contractor shall participate in meetings and conference calls arranged by the EPA Task Order Contracting Officer Representative.

When requested by the TOCOR, the contractor shall provide supporting documentation when EPA is reviewing draft deliverables to facilitate EPA review and approval of the contractor's work. Documentation will include the electronic files and detailed, written explanation of all steps and decisions. The contractor is expected to comply with this request when it is received from the TOCOR regardless of whether such a request is described in the individual tasks of this PWS. The contractor is expected to furnish this information in such manner that no proprietary software will be needed for EPA to read, interpret, replicate or model any work product of this

agreement, unless otherwise noted in this PWS or by written permission of the EPA TOCOR. The objective is that anyone with the appropriate skill level can use the information produced under this Task Order to check or duplicate the contractor's work for replication and/or verification. With this understanding of how this Task Order's data will be used, any elements essential to successfully replicating analysis shall be provided to EPA in a commonly-used format.

The contractor shall provide both scientific/technical and editorial review as defined in section 2.6 of the Prime Contract Performance Work Statement on any Task Order **draft** product before submission to the EPA TOCOR for review. This process does not need to be performed by an independent peer reviewer. It is expected that all editorial review comments will be addressed before deliverables are furnished to the EPA TOCOR for review (in the case of draft deliverables) or acceptance (in the case of final deliverables); and that questions raised by scientific/ technical review will be either addressed or discussed with the EPA TOCOR prior to the contractor furnishing draft deliverables.

EPA anticipates that the contractor's work will be judged "satisfactory" according to the QASP if Task Order Contracting Officer Representative edits to deliverables are no more than ten percent (10%) of the content of any draft deliverable, or less than two percent (2%) of any final deliverable. In addition, EPA anticipates that the contractor's work will be judged "satisfactory" according to the QASP if less than ten percent (10%) of the pages of written final deliverables contain Task Order Contracting Officer Representative edits for such things as grammar, punctuation and format. The EPA TOCOR can upon request furnish a copy of the EPA correspondence manual for the contractor's use.

Upon receipt of written technical direction from the TOCOR, the contractor shall furnish:

- **all deliverables (draft and final) to EPA shall be furnished in an electronic version** and in an electronic format that EPA can support (see TSAWP Contract PWS Section 4.0 Deliverables).
- **all final deliverables to EPA shall include one (1) electronic copy and two (2) paper copies.** All final deliverables shall be prepared according to EPA publication guidelines and shall be compliant with Section 508 of the **Americans with Disabilities Act**.

All submittals to EPA shall be formatted as described below.

Electronic submissions shall be made in the following manner: electronic Microsoft Word© for any written reports, summaries or analysis documents, Microsoft Excel© format for any and all spreadsheets, raw data, coding and modeling work (including all model runs with essential data to replicate model runs), and Microsoft Access© format for any and all databases or for other data as is approved by the EPA TOCOR in writing.

Final electronic submissions shall in an appropriate format. The contractor may utilize an FTP, but only if the EPA TOCOR gives written permission. Every electronic document and all of the

sections, text, graphs, charts or figures shall be unlocked, open and editable so that EPA may make further changes.

Final paper submissions shall be made in the following manner: two (2) separate and identical copies of all deliverables must be submitted; each separate copy includes all the products due at that date (i.e., Task 1, 2, etc.), and must be submitted in one (1) or more bound volumes, as appropriate, with a title page, an executive summary describing the purpose and content, and an index, located inside the front cover of each bound volume, and electronic copies enclosed in envelopes (or other suitable means) bound in the respective volume. Although PDF versions of materials may be additionally submitted per the contractor's prerogative, neither electronic nor paper PDF versions will be acceptable as any final work product.

Appropriate electronic format that is supported by EPA and printing of all GIS data layers, maps, photos, bench sheets and other written material not easily printed or saved in the above formats will be discussed and a format agreed upon with the EPA TOCOR prior to submittal by the contractor.

G. ANTICIPATED TRAVEL

All travel under this Task Order shall be in compliance with contract requirements and only according to specific Technical Direction. Travel is presently anticipated to be incidental only as needed to meet the EPA TOCOR and to provide support for webinar/webcasts/trainings conducted at EPA Headquarters or elsewhere (Task 3 and 4), and for two webinar/webcast/training presenters (Task 3 and 4) to travel to Washington, DC to participate in a webinar/webcast/training in person. For planning purposes, 12 meetings each base and option period would be for contractor travel to EPA HQ in DC, and two trips for each base and option period would be for webinar/webcast/training speakers to travel to Washington, DC or elsewhere to participate in a webinar/webcast/training in person (for costing purposes assume webinar/webcast/training speakers will travel from a central location such as New Orleans, LA).

H. CONTRACTOR IDENTIFICATION

Contractor personnel shall always identify themselves as contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative.

The contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the EPA Task Order Contracting Officer Representative.

I. CONFERENCE/MEETING GUIDELINES AND LIMITATIONS:

The EPA projects that none of the individual meetings identified in these tasks will exceed a total cost of \$20,000. The contractor shall immediately notify the EPA Contracting Officer, Contract Level COR and TOCOR of any anticipated individual event involving support for a meeting, conference, workshop, symposium, retreat, seminar or training that may potentially incur \$23,000 or more in cost during performance. Conference expenses are all direct and indirect

costs paid by the government and include any associated authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for conference preparation should be included, but the federal employee time for conference preparation should not be included. After notifying EPA of the potential to reach this threshold, the contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

J. VALIDATION OF TASK ORDER DELIVERABLES FOR SECTION 508 COMPLIANCE

The Contractor shall support the TOCOR in conducting a “Final Deliverable Validation” to ensure compliance with Section 508 and the Federal Acquisition Regulations (FAR) related to “electronic and information technology (EIT) deliverables”. The contractor shall furnish certification, in writing, to the TOCOR that the contractor has complied with EPAAR Clause 1552.211-79 “Compliance with EPA Policies for Information Resources Management” (Reference Contract Clause C-1), including the requirement that all electronic and information technology (EIT) deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/> . Reference Contract Clause C-1 (c) and Attachment 1, PWS, Section 2.5.3.4, 3.7, and 4.3.7.

K. QUALITY ASSURANCE SURVEILLANCE PLAN

Per contract requirements.

L. NOTIFICATION OF COMPLETION OF TO DELIVERABLES

In the event that the Task Order reaches thirty (30) days prior to the end of the Period of Performance in a given period and the contractor assesses that the deliverables, benchmarks or milestones will not be able to be completed, the contractor shall immediately furnish written notification to the TOCOR and the Contracting Officer (CO).

Within five (5) business days of receiving this written notification, the TOCOR in coordination with the CO will provide written technical direction to the contractor concerning use of the funds which remain in the Task Order to prepare draft deliverables, interim work products, and any necessary working files in an electronic format which is supported by EPA, and furnish these to the TOCOR.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 3	
2. AMENDMENT/MODIFICATION NO. P00001		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
5. PROJECT NO. (If applicable)		6. ISSUED BY CODE CPOD		7. ADMINISTERED BY (If other than Item 6) CODE CPOD	
CPOD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001		CPOD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) CADMUS GROUP, INC., THE Attn: (b)(4) 100 5TH AVENUE SUITE 100 WALTHAM MA 02451		(x)		9A. AMENDMENT OF SOLICITATION NO.	
CODE 101163731		FACILITY CODE		9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. EP-C-17-044 68HE0C18F0811	
				10B. DATED (SEE ITEM 13) 08/02/2018	
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule					
Net Decrease: -\$66,797.00					
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.					
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.				
X	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).				
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:				
	D. OTHER (Specify type of modification and authority)				
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)					
DUNS Number: 101163731					
The purpose of this modification is to deobligate the funding for the Program Office to correct the line of accounting that contains duplicate commitment lines. Another modification to add the corrected line of accounting back on to the task order will be executed in the next week.					
TOCOR: Miranda Chien-Hale Max Expire Date: 07/31/2023 Invoice Approver: Miranda Chien-Hale					
Alt Invoice App: Don Waye					
LIST OF CHANGES:					
Obligated Amount for this Modification: -\$66,797.00					
New Total Obligated Amount for this Award: \$0.00					
Continued ...					
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
		Kathleen Rechenberg			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA	
(Signature of person authorized to sign)				 (Signature of Contracting Officer)	
				16C. DATE SIGNED 08/20/2018	

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NAME OF OFFEROR OR CONTRACTOR
CADMUS GROUP, INC., THE

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
0001	<p>Incremental Funded Amount changed: from \$66,797.00 to \$0.00 CHANGES FOR LINE ITEM NUMBER: 1 Obligated Amount for this Modification: -\$66,797.00 Incremental Funded Amount changed from \$66,797.00 to \$0.00 FOB changed from Destination to</p> <p>CHANGES FOR ACCOUNTING CODE: 18-19-B-87FN-000BD4-2505-1887TE8018-001 Amount changed from \$5,000.00 to \$0.00 Percent changed from 7.48537 to 0</p> <p>CHANGES FOR ACCOUNTING CODE: 18-19-B-87FN-000BD4-2505-1887TE8018-002 Amount changed from \$41,797.00 to \$0.00 Percent changed from 62.57317 to 0</p> <p>CHANGES FOR ACCOUNTING CODE: 18-19-B-87FP-000BD4-2505-1887TE8018-003 Amount changed from \$20,000.00 to \$0.00 Percent changed from 29.94146 to Delivery: 07/31/2019 Delivery Location Code: OW-OWOW-AWPD-WB AWPD-WB US EPA-OW-OWOW-AWPD-WB 1200 PENNSYLVANIA AVE., NW MC-4503-T WASHINGTON DC 20460</p> <p>Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 Period of Performance: 08/02/2018 to 07/31/2019</p> <p>Change Item 0001 to read as follows (amount shown is the total amount):</p> <p>BASE PERIOD: Watershed Academy and Communications Support in accordance with the PWS</p> <p>Accounting Info: 18-19-B-87FN-000BD4-2505-1887TE8018-001 BFY: 18 EFY: 19 Fund: B Budget Org: 87FN Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: Continued ...</p>				

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
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NAME OF OFFEROR OR CONTRACTOR
 CADMUS GROUP, INC., THE

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	1887TE8018-001 Funding Flag: Complete Funded: -\$5,000.00 Accounting Info: BFY: 00 Fund: ZERO Budget Org: DOLLAR Program (PRC): ADMIN Budget (BOC): REQ Funding Flag: Complete Funded: \$0.00 Accounting Info: 18-19-B-87FN-000BD4-2505-1887TE8018-002 BFY: 18 EFY: 19 Fund: B Budget Org: 87FN Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 1887TE8018-002 Funding Flag: Complete Funded: -\$41,797.00 Accounting Info: 18-19-B-87FP-000BD4-2505-1887TE8018-003 BFY: 18 EFY: 19 Fund: B Budget Org: 87FP Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 1887TE8018-003 Funding Flag: Complete Funded: -\$20,000.00				

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 5	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
P00002		See Block 16C		PR-OW-18-00048			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
CPOD		CPOD		CPOD		CPOD	
CPOD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001				CPOD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				9A. AMENDMENT OF SOLICITATION NO.			
CADMUS GROUP, INC., THE Attn: (b)(4) 100 5TH AVENUE SUITE 100 WALTHAM MA 02451				(x)			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. EP-C-17-044 68HE0C18F0811			
CODE 101163731		FACILITY CODE		10B. DATED (SEE ITEM 13) 08/02/2018			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule				Net Increase:		\$66,797.00	
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) EPA-B-16-102 Estimated Cost and Fixed Fee						
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
DUNS Number: 101163731							
The purpose of this modification is to obligate \$66,797 with the corrected lines of accounting.							
TOCOR: Miranda Chien-Hale Max Expire Date: 07/31/2023 Invoice Approver: Miranda Chien-Hale							
Alt Invoice App: Don Waye							
LIST OF CHANGES:							
Reason for Modification: Funding Only Action							
Obligated Amount for this Modification: \$66,797.00							
New Total Obligated Amount for this Award: \$66,797.00							
Incremental Funded Amount changed: from							
\$0.00 to \$66,797.00							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Kathleen Rechenberg			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				 (Signature of Contracting Officer)		08/30/2018	

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NAME OF OFFEROR OR CONTRACTOR
CADMUS GROUP, INC., THE

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>CHANGES FOR LINE ITEM NUMBER: 1</p> <p>Obligated Amount for this Modification: \$66,797.00</p> <p>Incremental Funded Amount changed from \$0.00 to \$66,797.00</p> <p>FOB changed from Destination to</p> <p>NEW ACCOUNTING CODE ADDED:</p> <p>Account code:</p> <p>18-19-B-87FN-000BD4-2505-1887TE8018-001</p> <p>Beginning FiscalYear 18</p> <p>Ending Fiscal Year 19</p> <p>Fund (Appropriation) B</p> <p>Budget Organization 87FN</p> <p>Program (PRC) 000BD4</p> <p>Budget (BOC) 2505</p> <p>Job # (Site/Project)</p> <p>Cost Organization</p> <p>DCN-LineID 1887TE8018-001</p> <p>Amount: \$46,797.00</p> <p>Percent: 70.05854</p> <p>Subject To Funding: N</p> <p>Payment Address:</p> <p>NEW ACCOUNTING CODE ADDED:</p> <p>Account code:</p> <p>18-19-B-87FP-000BD4-2505-1887TE8018-003</p> <p>Beginning FiscalYear 18</p> <p>Ending Fiscal Year 19</p> <p>Fund (Appropriation) B</p> <p>Budget Organization 87FP</p> <p>Program (PRC) 000BD4</p> <p>Budget (BOC) 2505</p> <p>Job # (Site/Project)</p> <p>Cost Organization</p> <p>DCN-LineID 1887TE8018-003</p> <p>Amount: \$20,000.00</p> <p>Percent: 29.94146</p> <p>Subject To Funding: N</p> <p>Payment Address:</p> <p>Delivery: 07/31/2019</p> <p>Delivery Location Code: OW-OWOW-AWPD-WB</p> <p>AWPD-WB</p> <p>US EPA-OW-OWOW-AWPD-WB</p> <p>1200 PENNSYLVANIA AVE., NW</p> <p>MC-4503-T</p> <p>WASHINGTON DC 20460</p> <p>Continued ...</p>				

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	EP-C-17-044/68HE0C18F0811/P00002	3	5

NAME OF OFFEROR OR CONTRACTOR
CADMUS GROUP, INC., THE

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
0001	<p>Payment:</p> <p>RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711</p> <p>Period of Performance: 08/02/2018 to 07/31/2019</p> <p>Change Item 0001 to read as follows (amount shown is the total amount):</p> <p>BASE PERIOD: Watershed Academy and Communications Support in accordance with the PWS</p> <p>Accounting Info: 18-19-B-87FN-000BD4-2505-1887TE8018-001 BFY: 18 EFY: 19 Fund: B Budget Org: 87FN Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 1887TE8018-001 Funding Flag: Partial Funded: \$0.00</p> <p>Accounting Info: BFY: 00 Fund: ZERO Budget Org: DOLLAR Program (PRC): ADMIN Budget (BOC): REQ Funding Flag: Partial Funded: \$0.00</p> <p>Accounting Info: 18-19-B-87FN-000BD4-2505-1887TE8018-002 BFY: 18 EFY: 19 Fund: B Budget Org: 87FN Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 1887TE8018-002 Funding Flag: Partial Funded: \$0.00</p> <p>Accounting Info: 18-19-B-87FP-000BD4-2505-1887TE8018-003 BFY: 18 EFY: 19 Fund: B Budget Org: 87FP Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 1887TE8018-003 Funding Flag: Partial Funded: \$0.00</p> <p>Accounting Info: 18-19-B-87FN-000BD4-2505-1887TE8018-001 BFY: 18 EFY: 19 Fund: B Budget Org: 87FN Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 1887TE8018-001 Funding Flag: Partial Funded: \$46,797.00</p> <p>Accounting Info: 18-19-B-87FP-000BD4-2505-1887TE8018-003 BFY: 18 Continued ...</p>				

NAME OF OFFEROR OR CONTRACTOR
CADMUS GROUP, INC., THE

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	EFY: 19 Fund: B Budget Org: 87FP Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 1887TE8018-003 Funding Flag: Partial Funded: \$20,000.00 Accounting Info: 18-19-B-87FN-000BD4-2505-1887TE8018-002 BFY: 18 EFY: 19 Fund: B Budget Org: 87FN Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 1887TE8018-002 Funding Flag: Partial Funded: \$0.00				

Section B - Supplies or Services/Prices was revised as follows.

1 - Clauses was revised as follows.

Summary of Clause Changes:

Clause, EPA-B-16-102, is incorporated as follows:

LOCAL CLAUSES EPA-B-16-102 ESTIMATED COST AND FIXED FEE

(a) The estimated cost of this contract is (b)(4)

(b) The fixed fee is (b)(4)

(c) The total estimated cost and fixed fee is **\$66,797**

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 5	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
P00003		See Block 16C		PR-CAD-19-00101			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
CPOD							
US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001							
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
CADMUS GROUP INC THE Attn: (b)(4) 100 5TH AVENUE SUITE 100 WALTHAM MA 02451							
				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. EP-C-17-044 68HE0C18F0811			
				10B. DATED (SEE ITEM 13) 08/02/2018			
CODE 101163731		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule							
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Bilateral - EPAAR 1552.217-71; Option to Extend the Term of the Contract						
E. IMPORTANT: Contractor <input type="checkbox"/> is not <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) DUNS Number: 101163731 The purpose of this modification is to 1) Exercise Option Period 1; 2) Shift \$20,000.00 from the Base Period to Option Period 1 ((b)(4) to cost and (b)(4) to fee) and; 3) Revise EPA-G-42-101, Contract Administration Representatives. . TOCOR: Miranda Chien-Hale Max Expire Date: 07/31/2023 Invoice Approver: Miranda Chien-Hale Alt Invoice App: Don Wayne LIST OF CHANGES: Reason for Modification: Exercise an Option Buyer changed Continued ... Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Lawrence Edelmann			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				 (Signature of Contracting Officer)		ELECTRONIC SIGNATURE 07/10/2019	

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NAME OF OFFEROR OR CONTRACTOR
 CADMUS GROUP, INC., THE

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>from Kathleen Rechenberg</p> <p>to Lawrence Edelmann</p> <p>Contracting Officer changed from Kathleen Rechenberg</p> <p>to Lawrence Edelmann</p> <p>CHANGES FOR LINE ITEM NUMBER: 1 Obligated Amount for this Modification: -\$20,000.00 Incremental Funded Amount changed from \$66,797.00 to \$46,797.00</p> <p>CHANGES FOR ACCOUNTING CODE: 18-19-B-87FN-000BD4-2505-1887TE8018-001 Amount changed from \$46,797.00 to \$26,797.00</p> <p>CHANGES FOR LINE ITEM NUMBER: 2 Obligated Amount for this Modification: \$20,000.00 Incremental Funded Amount changed from \$0.00 to \$20,000.00 Exercised option</p> <p>NEW ACCOUNTING CODE ADDED: Account code: 18-19-B-87FN-000BD4-2505-1887TE8018-001 Beginning FiscalYear 18 Ending Fiscal Year 19 Fund (Appropriation) B Budget Organization 87FN Program (PRC) 000BD4 Budget (BOC) 2505 Job # (Site/Project) Cost Organization DCN-LineID 1887TE8018-001 Quantity: 0 Amount: \$20,000.00 Percent: 29.602 Subject To Funding: N Payment Address:</p> <p>Continued ...</p>				

NAME OF OFFEROR OR CONTRACTOR
 CADMUS GROUP, INC., THE

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 Period of Performance: 08/02/2018 to 07/31/2020				

LOCAL CLAUSES EPA-B-32-101 LIMITATION OF FUNDS NOTICE – BASE PERIOD

(a) Pursuant to the Limitation of Funds clause, incremental funding in the amount of (b)(4) is allotted to cover estimated cost. Funding in the amount of (b)(4) is provided to cover the corresponding increment of base fee. The amount allotted for costs is estimated to cover the contractor's performance through **04/13/2019**.

(b) When the contract is fully funded (i.e. the sum of the total estimated cost, base fee, award fee pool available for award, and award fee awarded, as set forth in the schedule of this contract), the Limitation of Cost clause shall become applicable.

(c) Recapitulation of Funds

EP-C-17-044; TO F0811			
Base Period - (08/01/2019 to 07/31/2019)			
	Estimated Cost	Fixed Fee	Cost Plus Fixed Fee
Task Order Award	(b)(4)		\$66,797.00
Modification 1 (Corrective)			(\$66,797.00)
Modification 2 (Corrective)			\$66,797.00
Modification 3			(\$20,000.00)
Total Funded			\$46,797.00
Total Task Order			\$66,797.00
Balance Unfunded			\$20,000.00

LOCAL CLAUSES EPA-B-16-102 ESTIMATED COST AND FIXED FEE – BASE PERIOD

(a) The estimated cost of this contract is (b)(4)

(b) The fixed fee is (b)(4)

(c) The total estimated cost and fixed fee is **\$66,797.00**

LOCAL CLAUSES EPA-B-32-101 LIMITATION OF FUNDS NOTICE – OPTION PERIOD 1

(a) Pursuant to the Limitation of Funds clause, incremental funding in the amount of (b)(4) is allotted to cover estimated cost. Funding in the amount of (b)(4) is provided to cover the corresponding increment of base fee. The amount allotted for costs is estimated to cover the contractor's performance through **11/17/2019**.

(b) When the contract is fully funded (i.e. the sum of the total estimated cost, base fee, award fee pool available for award, and award fee awarded, as set forth in the schedule of this contract), the Limitation of Cost clause shall become applicable.

(c) Recapitulation of Funds

EP-C-17-044; TO F0811			
Option Period 1 - (08/01/2019 to 07/31/2019)			
	Estimated Cost	Fixed Fee	Cost Plus Fixed Fee
Modification 3	(b)(4)		\$20,000.00
Total Funded			\$20,000.00
Total Task Order			\$67,563.00
Balance Unfunded			\$47,563.00

LOCAL CLAUSES EPA-B-16-102 ESTIMATED COST AND FIXED FEE – OPTION PERIOD 1

(a) The estimated cost of this contract is (b)(4)

(b) The fixed fee is (b)(4)

(c) The total estimated cost and fixed fee is **\$67,563.00**

LOCAL CLAUSE EPA-G-42-101 CONTRACT ADMINISTRATION REPRESENTATIVES

Task Order Contracting Officers Representatives (CORs)/Project Officers for this contract are as follows:

Task Order COR (TOCOR): Miranda Chien-Hale, chien-hale.miranda@epa.gov

Alternate Task Order COR (Alt TOCOR): Don Waye, waye.don@epa.gov

Contracting Officials responsible for administering this contract are as follows:

Contracting Officer: Lawrence Edelmann, US EPA. Cincinnati Procurement Operations Division, 26 W MLK Dr MS W136A, Cincinnati, Ohio 45268 edelmann.lawrence@epa.gov

Contracts Specialist: Lawrence Edelmann, US EPA. Cincinnati Procurement Operations Division, 26 W MLK Dr MS W136A, Cincinnati, Ohio 45268 edelmann.lawrence@epa.gov

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE		PAGE OF PAGES		
					1 3		
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
P000004		See Block 16C		PR-OW-19-00536			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
CPOD							
US Environmental Protection Agency							
26 West Martin Luther King Drive							
Mail Code: W136							
Cincinnati OH 45268-0001							
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
CADMUS GROUP INC THE							
Attn: (b)(4)				9B. DATED (SEE ITEM 11)			
100 5TH AVENUE							
SUITE 100							
WALTHAM MA 02451				x 10A. MODIFICATION OF CONTRACT/ORDER NO.			
				EP-C-17-044			
				68HE0C18F0811			
				10B. DATED (SEE ITEM 13)			
				08/02/2018			
CODE 101163731		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
See Schedule				Net Increase:		\$35,000.00	
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
CHECK ONE							
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).							
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
D. OTHER (Specify type of modification and authority)							
X Unilateral - FAR 52.232-22; Limitation of Funds							
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
DUNS Number: 101163731							
The purpose of this modification is to add incremental funding of \$35,000.00 to Option Period 1 (b)(4) cost and (b)(4) fee).							
.							
TOCOR: Miranda Chien-Hale Max Expire Date: 07/31/2023 Invoice Approver: Miranda Chien-Hale							
Alt Invoice App: Don Wayne							
LIST OF CHANGES:							
Reason for Modification: Funding Only Action							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Lawrence Edelmann			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				 (Signature of Contracting Officer)		ELECTRONIC SIGNATURE 07/23/2019	

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	EP-C-17-044/68HE0C18F0811/P00004	2	3

NAME OF OFFEROR OR CONTRACTOR
CADMUS GROUP, INC., THE

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>Obligated Amount for this Modification: \$35,000.00 Incremental Funded Amount changed: from \$66,797.00 to \$101,797.00</p> <p>CHANGES FOR LINE ITEM NUMBER: 2 Obligated Amount for this Modification: \$35,000.00 Incremental Funded Amount changed from \$20,000.00 to \$55,000.00</p> <p>NEW ACCOUNTING CODE ADDED: Account code: 19-20-B-87FN-000BD4-2505-1987NE9007-001 Beginning FiscalYear 19 Ending Fiscal Year 20 Fund (Appropriation) B Budget Organization 87FN Program (PRC) 000BD4 Budget (BOC) 2505 Job # (Site/Project) Cost Organization DCN-LineID 1987NE9007-001 Quantity: 0 Amount: \$35,000.00 Percent: 51.8035 Subject To Funding: N Payment Address:</p> <p>Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 Period of Performance: 08/02/2018 to 07/31/2020 . All other terms and conditions remain unchanged.</p>				

LOCAL CLAUSES EPA-B-32-101 LIMITATION OF FUNDS NOTICE – OPTION PERIOD 1

(a) Pursuant to the Limitation of Funds clause, incremental funding in the amount of (b)(4) is allotted to cover estimated cost. Funding in the amount of (b)(4) is provided to cover the corresponding increment of base fee. The amount allotted for costs is estimated to cover the contractor's performance through **05/24/2020**.

(b) When the contract is fully funded (i.e. the sum of the total estimated cost, base fee, award fee pool available for award, and award fee awarded, as set forth in the schedule of this contract), the Limitation of Cost clause shall become applicable.

(c) Recapitulation of Funds

EP-C-17-044; TO F0811			
Option Period 1 - (08/01/2019 to 07/31/2020)			
	Estimated Cost	Fixed Fee	Cost Plus Fixed Fee
Modification 3	(b)(4)		\$20,000.00
Modification 4			\$35,000.00
Total Funded			\$55,000.00
Total Task Order			\$67,563.00
Balance Unfunded			\$12,563.00

LOCAL CLAUSES EPA-B-16-102 ESTIMATED COST AND FIXED FEE – OPTION PERIOD 1

(a) The estimated cost of this contract is (b)(4)

(b) The fixed fee is (b)(4)

(c) The total estimated cost and fixed fee is **\$67,563.00**

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

1

4

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER 09/27/2018		2. CONTRACT NO. (If any) EP-C-17-044		6. SHIP TO:	
3. ORDER NO. 68HE0C18F0855		4. REQUISITION/REFERENCE NO. PR-R2-18-00465		a. NAME OF CONSIGNEE Multiple Destinations	
5. ISSUING OFFICE (Address correspondence to) CPOD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001				b. STREET ADDRESS	
				c. CITY	e. ZIP CODE
7. TO: (b)(4)		f. SHIP VIA			
a. NAME OF CONTRACTOR CADMUS GROUP, INC., THE		8. TYPE OF ORDER			
b. COMPANY NAME		<input type="checkbox"/> a. PURCHASE REFERENCE YOUR:		<input checked="" type="checkbox"/> b. DELIVERY	
c. STREET ADDRESS 100 5TH AVENUE SUITE 100		Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.		Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
d. CITY WALTHAM	e. STATE MA	f. ZIP CODE 02451			
9. ACCOUNTING AND APPROPRIATION DATA See Schedule				10. REQUISITIONING OFFICE Region 2	
11. BUSINESS CLASSIFICATION (Check appropriate box(es)) <input type="checkbox"/> a. SMALL <input checked="" type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. SERVICE-DISABLED VETERAN-OWNED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM <input type="checkbox"/> h. EDWOSB				12. F.O.B. POINT	
13. PLACE OF a. INSPECTION Destination		b. ACCEPTANCE Destination		14. GOVERNMENT B/L NO.	
				15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) 365 Days After Award	
				16. DISCOUNT TERMS	

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: 101163731 TOCOR: Antony Tseng Max Expire Date: 09/30/2020 Invoice Approver: Antony Tseng Alt Invoice App: Rosella O'Connor Continued ...					

SEE BILLING INSTRUCTIONS ON REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOTAL (Cont. pages)
	21. MAIL INVOICE TO:						
	a. NAME RTP Finance Center		\$145,426.00				17(i) GRAND TOTAL
	b. STREET ADDRESS (or P.O. Box) US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts		\$145,426.00				
c. CITY Durham		d. STATE NC	e. ZIP CODE 27711				

22. UNITED STATES OF AMERICA BY (Signature)

09/27/2018

Angela Lower

ELECTRONIC SIGNATURE

23. NAME (Typed)

Angela Lower

TITLE: CONTRACTING/ORDERING OFFICER

ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

PAGE NO
2

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER 09/27/2018	CONTRACT NO. EP-C-17-044	ORDER NO. 68HE0C18F0855
-----------------------------	-----------------------------	----------------------------

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
0001	<p>Admin Office: CPOD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268</p> <p>Period of Performance: 09/27/2018 to 09/30/2019</p> <p>Base Period: Support For Revision Of The NY Shellfish Pathogen Total Maximum Daily Load (TMDL) Reports in accordance with the attached PWS.</p> <p>*****Attention Finance: \$100,000 of the funding for the base period of this task order is being allocated from Contract EP-C-17-044 from the line of accounting below 17-18-B-87AR-202BD4X22-2505-1787RE7014-001** *****</p> <p>Delivery Location Code: CPOD CPOD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268 USA Amount: \$145,426.00 Accounting Info: 17-18-B-87AR-202BD4X22-2505-1787RE7014 -001 BFY: 17 EFY: 18 Fund: B Budget Org: 87AR Program (PRC): 202BD4X22 Budget (BOC): 2505 DCN - Line ID: 1787RE7014-001 Funding Flag: Complete Funded: \$0.00 Accounting Info: 18-19-B-87FT-000BD4-2505-1887TE8024-00 1 BFY: 18 EFY: 19 Fund: B Budget Org: 87FT Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 1887TE8024-001 Funding Flag: Complete Funded: \$45,426.00</p> <p>Continued ...</p>				145,426.00	

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$145,426.00

ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

PAGE NO
3

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER	CONTRACT NO.	ORDER NO.
09/27/2018	EP-C-17-044	68HE0C18F0855

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
00010001	Option Period I: Support For Revision Of The NY Shellfish Pathogen Total Maximum Daily Load (TMDL) Reports in accordance with the attached PWS. (Option Line Item) 09/30/2019 Delivery Location Code: R2 Region 2 US Environmental Protection Agency 290 Broadway New York NY 10007-1866 USA Amount: \$29,730.00					

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$0.00

1552.217-71 OPTION TO EXTEND THE TERM OF THE CONTRACT-COST-TYPE CONTRACT (APR 1984)

The Government has the option to extend the term of this contract for one (1) additional period(s). If more than 30 days remain in the contract period of performance, the Government, without prior written notification, may exercise this option by issuing a contract modification. To exercise this option within the last 30 days of the period of performance, the Government must provide to the Contractor written notification prior to that last 30-days of the period. This preliminary notification does not commit the Government to exercising the option. Use of an option will result in the following contract modifications:

(a) The "Period of Performance" clause will be amended to cover a base period and option periods:

	Period Start Date	End Date
Base Period	Award Date – 09/30/2019	
Option Period 1	10/01/2019 – 09/28/2020	

(b) The "Estimated Cost and Fixed Fee" clause will be amended to reflect increased estimated costs and fixed fee for each option period as follows:

Period	Estimated Cost	Fixed Fee	Total CPFF
Base Period	(b)(4)		\$145,426
Option Period 1			\$29,730

(c) If the contract contains "not to exceed amounts" for elements of other direct costs (ODC), those amounts will be increased as follows: N/A

LOCAL CLAUSES EPA-B-16-102 ESTIMATED COST AND FIXED FEE

(a) The estimated cost of this task order is (b)(4)

(b) The fixed fee (b)(4)

(c) The total estimated cost and fixed fee is **\$145,426.00**

LOCAL CLAUSE EPA-G-42-101 CONTRACT ADMINISTRATION REPRESENTATIVES

Task Order Contracting Officers Representatives (CORs)/Project Officers for this contract are as follows:

Task Order COR (TOCOR): Antony Tseng, tscng.antony@cpa.gov PH 212-637-3777

Alternate Task Order COR (Alt TOCOR): Rosella O'Connor roconnor.rosella@cpa.gov PH 212-637-3823

Contracting Officials responsible for administering this contract are as follows:

Contracting Officer

Angela Lower, US EPA. Cincinnati Procurement Operations Division, 26 W MLK Dr MS W136A, Cincinnati, Ohio 45268 lower.angela@cpa.gov

Contract Specialist

Lisa Mitchell-Flinn, US EPA. Cincinnati Procurement Operations Division, 26 W MLK Dr MS W121B, Cincinnati, Ohio 45268 mitchell-flinn.lisa@cpa.gov

PERFORMANCE WORK STATEMENT

TSAWP IDIQ MULTIPLE-AWARD CONTRACT SOLICITATION PR-R2-18-00465

SUPPORT FOR REVISION OF THE NY SHELLFISH PATHOGEN TOTAL MAXIMUM DAILY LOAD (TMDL) REPORTS

Task Order COR (TOCOR): Antony Tseng
Alternate Task Order COR: Rosella O'Connor

A. Background

EPA, Region 2 approved the following NYSDEC Total Maximum Daily Load (TMDL) documents for waterbodies impaired for pathogens on Long Island:

- Pathogen Total Maximum Daily Loads for Shellfish Waters in Oyster Bay Harbor and Mill Neck Creek, September 2003:
https://ofmpub.epa.gov/waters10/attains_impaired_waters.tmdl_docs?p_tmdl_id=9819
- Peconic Bay Pathogens TMDL, September 2006:
https://ofmpub.epa.gov/waters10/attains_impaired_waters.tmdl_docs?p_tmdl_id=31027
- Shellfish Pathogen TMDLs for 27 303(d) listed Waters, September 2007:
https://ofmpub.epa.gov/waters10/attains_impaired_waters.tmdl_docs?p_tmdl_id=33761

These TMDLs establish the maximum allowable load of pathogens to waters to meet water quality standards and include load allocations and corresponding pollutant load reductions to sources of pathogens (expressed both as a percent reduction and # billion Fecal Coliform/year) to achieve the maximum allowable load.

Once a TMDL is completed and approved by EPA, SPDES permits must include conditions necessary to implement a TMDL/wasteload allocation/load allocation (NYCRR 750-1.11). As such, NYSDEC's SPDES General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s) - Permit No. GP-0-15-003 includes a requirement that covered entities discharging pathogens to a water for which a TMDL for pathogens has been developed, modify their Stormwater Management Program (SWMP) to meet the additional requirements set forth in Part IX.C of the MS4 General Permit to address pathogens for the portion of their storm sewershed in a TMDL watersheds.

The best representations of Waters of US in New York State are the Water Index Number (WIN) which are segments mapped and documented in the New York Codes, Rules, and Regulations (NYCRR).

As per NYS 6 NYCRR 701.10, the best usages of saline surface Class SA waters are shellfishing for market purposes, primary and secondary contact recreation and fishing. These waters shall be suitable for fish, shellfish and wildlife propagation and survival. The classification of individual bodies of surface water is in regulation 6 NYCRR Chapter X (Parts 800 - 941).

In New York, the Waterbody Inventory/Priority Waterbodies List (WI/PWL) is a compilation of water quality information for all individual waterbodies (lakes, rivers, streams, estuaries and coastlines) in the state. The WI/PWL includes waterbody Fact Sheets outlining the most recent assessment of use support, identification of water quality problems and sources, and summary of activities to restore and protect each individual waterbody. These PWLs typically make up New York's assessment units for determination whether a waterbody is or is not on the 303(d) list.

The NYSDEC is charged with monitoring water quality in all bivalve shellfish growing areas (SGA), and determining whether the conditions are suitable to allow for public consumption of mollusks taken. The NYSDEC, utilizing National Shellfish Sanitation standards (NSSP) allow for the certification and designation of water bodies. The classifications are: Certified (open to harvesting year round); Seasonally Certified (usually open to harvesting during the winter months, independent of rainfall); Conditionally Certified (generally open for winter harvest dependent upon a "trigger amount" of rainfall within 24 hours); or Uncertified (closed year-round). Each of these classifications is based on water quality testing using the total coliform bacteriological standard, which is used as an indicator for the possible presence of pathogens in filter feeding bivalves. Since bivalve shellfish ingest suspended particles, high concentrations of coliform bacteria consolidate within the gut, making human consumption potentially hazardous. Some areas are administratively closed such as prohibited areas associated with Wastewater Treatment Plants, other point source outfall of public health significance, unpredictable pollution sources, contamination, sufficient biotoxin to cause a public health risk, or marinas. The restricted area classification is an option available to State shellfish control agencies to use instead of a prohibited classification. The establishment of a restricted area might be considered in instances where an area does not meet approved area criteria but is not grossly polluted or non-point pollution causes the water quality to fluctuate unpredictably or of sufficient frequency that a conditionally approved area is not feasible. NYSDEC online mapper can be found at:

<https://nysdec.maps.arcgis.com/apps/webappviewer/index.html?id=d98abc91849f4ccf8c38dbb70f8a0042>.

EPA is making available its project data at our Sharepoint site to the contractor at:
LI Pathogen TMDLs

B. Tasks

Please refer to Appendix A for the list of PWL waters that this scope applies to. Some of the waters are part, but not limited to, the approved TMDLs mentioned in the background.

Task 1: BASE YEAR - Modeling Quality Assurance Project Plan

The contractor shall submit a modeling QAPP as applicable to compile the data for a TMDL approach. The contractor shall submit for review and approval the QAPP to the Task Order Manager (TOM) and the EPA QA officer to be specified by the TOM. The QAPP shall conform to EPA G5/M (December 2002, EPA/240/R-02/007).

For the purposes of this Task Order, the contractor can expect to gather data from various sources and calculate in-situ concentrations of pathogens for current and NSSP water quality targets using the tidal prism model.

The contractor shall develop and institute internal management controls that ensure that, in the performance of this Task Order, the contractor will not provide personal services nor perform inherently governmental functions.

The contractor should anticipate in participating in project calls with the EPA and New York State Department of Environmental Conservation and will revise the QAPP as directed.

Task 2: BASE YEAR - Organization of GIS

New York State has various spatial layers to describe their surface waters. Of note, PWLs and SGAs are not mutually consistent. The contractor shall catalog the PWL and SGA layers to produce a crosswalk of SGAs with PWLs and note the differences. SGAs should include approved, conditionally approved, conditionally restricted, or restricted growing areas and be described as such. Any conditional areas should include the time frames that such areas are closed. Shellfish lands that are uncertified (see <https://www.dec.ny.gov/outdoor/103483.html>), closures, and prohibited areas should also be identified and included in the comparison to the PWL areas.

In tandem with Task 3 of this Task Order, the contractor shall create clearly delineated tables with data points and data values for each shellfish land or PWL, whichever is smaller in a co-located geographic area.

Task 3: [Descoped] WQX Data Upload

[This task is descoped and no longer included in the PWS. EPA will provide the data to the contractor in the format specified by the contractor for use in Task 4 as a user-inputted source.]

Task 4: BASE YEAR - Data User Interface

The contractor shall also be provided in-situ pathogen data from other sources such as the Beach Program, Nassau County, and Suffolk County, if available. Some municipalities in the areas of study may also have in-situ pathogen data.

The contractor will download EPA's Water Quality Portal Data Discovery Tool from <https://www.epa.gov/waterdata/water-quality-portal-data-discovery-tool>. The contractor will also download the latest FDA Guide for the Control of Molluscan Shellfish from <https://www.fda.gov/Food/GuidanceRegulation/FederalStateFoodPrograms/ucm2006754.htm>. The contractor will modify this EPA tool to a user interface to make the data more usable for classifications of growing areas as per this FDA guide¹. This user interface must:

- be able to download data from WQX of parameters of interest to the National Shellfish Sanitation Program (NSSP)

¹ See Section II. Model Ordinance - Chapter IV. Shellstock Growing Areas (pages 40-49) and Section IV. Guidance Documents - Chapter II. Growing Areas (Pages 204-207).

- be able to import data from user-inputted sources.
- allow the user to include/exclude data sources, include/exclude sampling schemes (i.e. SRS, APC, or Other), include/exclude laboratory/dilution methods (i.e. three-tube dilution, none specified), and calculate median and 90th percentile concentrations based on NYSDEC-specified time periods: annual; summer; winter; SGA closed periods.
- Output concentrations for use in Task 6 of this Task Order.
- display the user options chosen, the number of points, date range, station names, and sampling schemes included in these calculations.
- provide the user with a list of values and stations that exceed the NSSP median and 90th percentile targets.

The contractor shall also develop an output from this user interface for purposes of running the tidal prism model (see Task 6) or producing summary reports that can be used in Word. The contractor shall also develop a user manual that describes the user interface's requirements, capabilities and instructions on use. All user interface codes will be delivered to the TOCOR as part of Task 7.

Task 5: OPTION YEAR 1 - Contributions from watersheds

Task 5a: The contractor shall perform three literature searches:

- How to delineation of watersheds in areas similar to the waters in Appendix A: As part of the literature search, the contractor will highlight delineation in areas with relatively flat elevation increases.
- Modeling of pathogen fate and transport in groundwater: Groundwater discharges from POTW's are not subject to secondary treatment requirements of 40 CFR Part 133, but are subject to the requirements of NYCRR Part 703 (Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations) except as noted in NYCRR Part 702.21. TOGS 1.1.2 provides a listing of effluent limitations for substances having an ambient water quality standard or guidance value.
- Water quality response to pathogen pollutant loads for fecal coliform: As part of the literature search, the contractor will highlight
 - o how DNA source identification can be used to quantify pathogen loads;
 - o fecal coliform die-off rates in areas similar to the waters in Appendix A; and
 - o relationships (i.e. ratios/dilutions) between in-situ water quality concentrations of pathogens with land-based pollutant loads (see also recommendations requested at the end of Task 6).

Task 5b: The contractor shall delineate drainage areas for each SGA for 20 PWLs based on elevation and physical features through technical direction of the TOCOR. NHD catchments and existing watershed boundaries (i.e. Peconic Estuary watershed, if applicable) shall also be considered and provided by the TOCOR.

The contractor shall provide the delineated drainage areas as a shapefile to EPA, discuss the rationale of the drainage area delineations by each PWL, and report on the comparison to catchments/boundaries (if provided).

Task 6: BASE YEAR - Tidal Prism Modeling

For this task, the contractor will develop their own values for the all variables needed in Tidal Prism modeling, such as quantities, volumes, etc.

The contractor shall develop an output from the user interface in Task 4 to calculate a baseline using a Tidal Prism Model.

For the purposes of this task, the tidal prism model will be calculated for each SGA or PWL, whichever is geographically smaller and each calculation shall be group by PWL. The contractor shall use the tidal prism model to establish the baseline of the current water quality of each SGA by each PWL.

The tidal prism model will also be used to determine the load capacity of each SGA by each PWL that will meet the median and 90th percentile NSSP targets. These tidal prism calculations shall be placed on a spreadsheet and values for each tidal prism variable will be clearly listed. Cells with die-off rates will be emphasized for future adjustments. The crosswalk developed in Task 2 of this Task Order should be used to identify the geographic location of each of the tidal prism model calculations.

EPA notes that there may not be sufficient data from Task 4 to generate concentrations to use the tidal prism model in some SGAs. The contractor will still use the tidal prism model for each SGA by each PWL with whatever the user chooses for that SGA and if no data is chosen by the user (i.e. no data available), the other variables needed in the Tidal Prism modeling will still have values developed by the contractor and the concentrations will default to zero.

The contractor shall also provide a report by PWL that documents the values used for each of the tidal prism model calculations and where the values came from/how the values were obtained.

The contractor shall also make recommendations on addressing data gaps and waterbody/watershed model combinations with advantages and disadvantages.

Task 7: BASE YEAR - Technology Transfer

The contractor shall deliver all project files to EPA at the end of this Task Order. This includes any programming codes, macros, GIS files, Word documents, and data.

C. Schedule of Benchmarks & Deliverables

All deliverables developed at any time in this work must be provided to the TOCOR in electronic formats that can be supported (i.e. PDF) and can be edited (i.e. Word, Excel) by EPA. All electronic deliverables must also be in a format that can be supported by EPA after the end of the Reports must be of high quality and 508 complaint: Work must reflect a high level of technical proficiency and be clearly explained and documented. The contractor shall include a certification of 508 compliance with each final electronic deliverable (see Section G).

Base Year:

Task No.	Deliverable	Schedule
1	1.1 Draft QAPP	Submission of Draft QAPP for review and approval within <u>30</u> calendar days of award.
	1.2 Final QAPP	Submission of Final QAPP with contractor signatures that incorporates EPA QA Officer comments with <u>14</u> calendar days of receipt of EPA QA Officer's comments.
2	2.1 SGA and PWL comparison	Report and GIS of the comparison within 30 calendar days of the receipt of the data from the EPA COR.
	2.2: SGA and PWL tables with data points and data values.	Report within 30 calendar days of the receipt of the data from the EPA COR.
3	Descoped-3.1 WQX Upload	
4	4.1: Draft user interface	Draft user interface and report on the description the data sources collected and user guide within <u>60</u> calendar days of the receipt of data.
	4.2: Final user interface	Final user interface and report within <u>30</u> calendar days of receipt of comments which incorporate comments.
Option Year 1 5a	5.1 Three literature searches	Draft literature searches within <u>90</u> calendar days of award of Option Year 1 is exercised.
Option Year 1 5b	5.2: Draft delineation of watersheds and comparisons	Draft delineation watersheds, descriptions, and comparisons grouped by PWL within <u>30</u> calendar days of the receipt of data if Option Year 1 is exercised.
	5.3 Final delineation of watersheds and comparisons	Final delineation watersheds, descriptions, and comparisons grouped by PWL within <u>30</u> calendar days of receipt of comments which incorporate comments if Option Year 1 is exercised.
6	6.1 Draft Tidal Prism modeling	Draft tidal prism modeling and reports grouped by PWL within <u>30</u> calendar days of the receipt of data.
	6.2 Final Tidal Prism modeling	Final tidal prism modeling and reports grouped by PWL within <u>30</u> calendar days of receipt of comments.
7	Technology Transfer	Project files 30 calendar days before the end of the Task Order.

D. Validation of Section 508 Compliance of Task Order Deliverables

The Contractor shall support the TOCOR in conducting a “Final Deliverable Validation” to ensure compliance with Section 508 and the Federal Acquisition Regulations (FAR) related to “electronic and information technology (EIT) deliverables”. The Contractor shall furnish certification, in writing, to the TOCOR that the Contractor has complied with EPAAR Clause

1552.211-79 “Compliance with EPA Policies for Information Resources Management”, including the requirement that all electronic and information technology (EIT) deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/>.

E. Notification of Completion of Task Order Deliverables

In the event the Task Order reaches thirty (30) days prior to the end of the Period of Performance in a given period, and the contractor assesses that the contractor will not be able to satisfactorily complete any of the benchmarks, milestones, or deliverables by the end of the Performance Period, the contractor shall notify the TOCOR and the Contracting Officer (CO) immediately, in writing. Within five (5) business days of said notification, the TOCOR, in coordination with the CO, will provide technical direction concerning use of the remaining funding to prepare and furnish to the TOCOR: draft deliverables, interim work products, and any necessary working files in an electronic format which is supported by EPA.

F. Contractor Identification

Contractor personnel shall always identify themselves as Contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency’s official representative.

The Contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the TOCOR.

G. Conference/Meeting Support Guidance

The contractor shall immediately notify the EPA Contracting Officer, PO and TOCOR of any anticipated event involving support for a meeting, conference, workshop, symposium, retreat, seminar or training that may potentially incur \$20,000 or more in cost during performance. Conference expenses are all direct and indirect costs paid by the government and include any associated authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for conference preparation should be included, but the federal employee time for conference preparation should not be included. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

H. Quality Assurance Surveillance Plan: Per contract requirements.

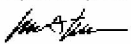
APPENDIX A

Waters that are part of this Task Order:

<u>WIN</u>	<u>NAME</u>	<u>PWL</u>	<u>COUNTY</u>
(MW0.0) AO (portion 1)	Atlantic Ocean Coastline	1701-0014	Queens
(MW1.2) RB (portion 1)	Raritan Bay, Class SA	1701-0002	Richmond
(MW3.1) LIS (portion 1b)	New Rochelle Harbor	1702-0259	Westchester
(MW3.1) LIS (portion 2)	Long Island Sound, Westchester Co Waters	1702-0001	Westchester
(MW4.1) LIS (portion 3)	Long Island Sound, Nassau County Waters	1702-0028	Nassau
(MW4.2b) LIS-MB (portion 1)	Manhasset Bay, and tidal tribs	1702-0021	Nassau
(MW4.3a) LIS-HH	Hempstead Harbor, north, and tidal tribs	1702-0022	Nassau
(MW4.3b) LIS-41-P145	Dosoris Pond	1702-0024	Nassau
(MW4.4a) LIS-OBH	Oyster Bay Harbor	1702-0016	Nassau
(MW4.4a) LIS-OBH-MNC	Mill Neck Creek and tidal tribs	1702-0151	Nassau
(MW4.4b) LIS-CSH	Cold Spring Harbor, and tidal tribs	1702-0018	Nassau
(MW5.2a) LIS-HB-HH	Huntington Harbor	1702-0228	Suffolk
(MW5.2a) LIS-HB-NB-CH	Centerport Harbor	1702-0229	Suffolk
(MW5.2a) LIS-HB-NB-NH	Northport Harbor	1702-0230	Suffolk
(MW5.4a) LIS-SB-SBH	Stony Br. Harbor and W. Meadow Cr.	1702-0047	Suffolk
(MW5.4b) LIS-P339	Flax Pond	1702-0240	Suffolk
(MW5.4c) LIS-PJH (portion 1)	Port Jefferson Harbor, North, and tribs	1702-0015	Suffolk
(MW5.4c) LIS-PJH-CB	Conscience Bay and tidal tribs	1702-0091	Suffolk
(MW5.4c) LIS-PJH-SH	Setauket Harbor	1702-0242	Suffolk
(MW5.4d) LIS- MSH	Mt Sinai Harbor and tidal tribs	1702-0019	Suffolk
(MW5.4e) LIS- 71	Mattituck Inlet/Cr, Low, and tidal tribs	1702-0020	Suffolk
(MW5.4e) LIS- 72	Goldsmith Inlet	1702-0026	Suffolk
(MW5.4g) LIS-FI-P1101,P1102	Beach/Island Ponds, Fishers Island	1701-0283	Suffolk
(MW5.4g) LIS-FI-WH	West Harbor, Fishers Island	1702-0046	Suffolk
(MW6.1a) GB-P397	Spring Pond	1701-0230	Suffolk
(MW6.1b) GB-SIS- 77-P400	Gull Pond	1701-0231	Suffolk
(MW6.1b) GB-SIS- 78	Stirling Creek and Basin	1701-0049	Suffolk
(MW6.1b) GB-SIS- 80c-P418a	Budds Pond	1701-0234	Suffolk
(MW6.1b) GB-SIS- 83a,83b	Town/Jockey Creeks and tidal tribs	1701-0235	Suffolk
(MW6.1b) GB-SIS- 84-P423	Goose Creek	1701-0236	Suffolk
(MW6.1b) GB-SIS(-DH)	Dering Harbor	1701-0050	Suffolk

<u>WIN</u>	<u>NAME</u>	<u>PWL</u>	<u>COUNTY</u>
(MW6.1b) GB-SIS-P420	Hashamomuck Pond	1701-0162	Suffolk
(MW6.1c) GB..LPB- 90	Richmond Creek and tidal tribs	1701-0245	Suffolk
(MW6.1c) GB..LPB-CH-93, P420	Mud/East Creeks and tribs	1701-0377	Suffolk
(MW6.1c) GB..LPB-CH-94	Wickham Creek and tribs	1701-0378	Suffolk
(MW6.1d) GB..GPB- 97 thru 104	Tidal Tribs to Gr Peconic Bay, Northshr	1701-0247	Suffolk
(MW6.1d) GB..LPB-CH-96	West Creek and tidal tribs	1701-0246	Suffolk
(MW6.1e) FB	Flanders Bay, East/Center, and tribs	1701-0030	Suffolk
(MW6.3a) GB..FB-RB	Reeves Bay and tidal tribs	1701-0272	Suffolk
(MW6.3b) GB..GPB-122a-P651	Little Sebonac Creek	1701-0253	Suffolk
(MW6.3b) GB..GPB-122a-P652	Scallop Pond	1701-0354	Suffolk
(MW6.3b) GB..GPB-122-P648	Sebonac Cr/Bullhead Bay and tidal tribs	1701-0051	Suffolk
(MW6.3c) GB..LPB-123-P659	North Sea Harbor and tribs	1701-0037	Suffolk
(MW6.3c) GB..LPB-124-P665	Wooley Pond	1701-0048	Suffolk
(MW6.3d) GB-SIS-126	Noyack Creek and tidal tribs	1701-0237	Suffolk
(MW6.3e) GB-SIS-SHB,SHC	Sag Harbor and Sag Harbor Cove	1701-0035	Suffolk
(MW6.3f) GB-AH	Acabonack Harbor	1701-0047	Suffolk
(MW6.3f) GB-SIS-NH-136	Northwest Creek and tidal tribs	1701-0046	Suffolk
(MW6.3g) BIS..P764	Oyster Pond/Lake Munchogue	1701-0169	Suffolk
(MW6.3g) GB-140/P729	Hog Creek and tidal tribs	1701-0277	Suffolk
(MW6.3h) BIS..P761	Lake Montauk	1701-0031	Suffolk
(MW6.3i) AO-SB-155	Phillips Creek, Lower, and tidal tribs	1701-0299	Suffolk
(MW6.3i) AO-SB-QgC	Quogue Canal	1701-0301	Suffolk
(MW7.1a) AO-P780	Georgica Pond	1701-0145	Suffolk
(MW7.1a) AO-P786	Sagaponack Pond	1701-0146	Suffolk
(MW7.1b) AO-P790	Mecox Bay and tribs	1701-0034	Suffolk
(MW7.1b) AO-SB-143,144	Heady and Taylor Creeks and tribs	1701-0294	Suffolk
(MW7.1b) AO-SB-148 thru 150	Penny Pond, Wells and Smith Creeks	1701-0298	Suffolk
(MW7.1b) AO-SB-153	Weesuck Creek and tidal tribs	1701-0111	Suffolk
(MW7.1b) AO-SB-156	Penniman Creek and tidal tribs	1701-0300	Suffolk
(MW7.1b) AO-SB-QgC-P834	Ogden Pond	1701-0302	Suffolk
(MW7.1c) AO-QB	Quantuck Bay	1701-0042	Suffolk
(MW7.1c) AO-SB-QB-QtC	Quantuck Canal/Moneybogue Bay	1701-0371	Suffolk

<u>WIN</u>	<u>NAME</u>	<u>PWL</u>	<u>COUNTY</u>
(MW7.2a) AO-MB (portion 3)	Tuthill, Harts, Seatuck Coves	1701-0309	Suffolk
(MW7.2a) AO-MB (portion 4)	Forge River, Lower and Cove	1701-0316	Suffolk
(MW7.2b) AO-MB-NB	Narrow Bay	1701-0318	Suffolk
(MW7.3) AO-GSB (portion 4)	Bellport Bay	1701-0320	Suffolk
(MW7.3) AO-GSB (portion 5)	Patchogue Bay	1701-0326	Suffolk
(MW7.6) AO-GSB (portion 6)	Nicoll Bay	1701-0375	Suffolk
(MW7.8) AO-GSB (portion 7)	Great Cove	1701-0376	Suffolk
(MW8.1) SOB	South Oyster Bay	1701-0041	Nassau
(MW8.2) EB	East Bay	1701-0202	Nassau
(MW8.3) MDB (portion 1)	Middle Bay	1701-0208	Nassau
(MW8.3) MDB (portion 4)	Garret Lead/East Channel	1701-0386	Nassau
(MW8.3) MDB (portion 6)	Middle Bay, Eastern Channel	1701-0387	Nassau
(MW8.3) MDB-RC	Reynolds Channel, east	1701-0215	Nassau
(MW8.3a) MDB-228	Freeport Cr/East Meadow Br, Lower	1701-0388	Nassau
(MW8.4) HB (portion 1)	Hempstead Bay, Broad Channel	1701-0032	Nassau
(MW8.4) HB (portion 2)	Hewlett Bay	1701-0382	Nassau
(MW8.4) HB (portion 3)	Browswere Bay	1701-0383	Nassau
(MW8.4) HB-ERI	East Rockaway Inlet	1701-0217	Nassau
(MW8.4a) HB-236	Woodmere Channel	1701-0219	Nassau
(MW8.4a) HB-237, 237a	Bannister Creek/Bay	1701-0380	Nassau

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE		PAGE OF PAGES		
					1 2		
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
P00001		See Block 16C		PR-R2-19-00178			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
CAD							
CAD							
US Environmental Protection Agency							
26 West Martin Luther King Drive							
Mail Code: W136							
Cincinnati OH 45268-0001							
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
CADMUS GROUP, INC., THE				9A. AMENDMENT OF SOLICITATION NO.			
Attn: (b)(4)							
100 5TH AVENUE				9B. DATED (SEE ITEM 11)			
SUITE 100							
WALTHAM MA 02451				x			
				10A. MODIFICATION OF CONTRACT/ORDER NO.			
				EP-C-17-044			
				68HE0C18F0855			
				10B. DATED (SEE ITEM 13)			
				09/27/2018			
CODE 101163731		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
See Schedule							
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
X		D. OTHER (Specify type of modification and authority) Bilateral - Supplemental Agreement for Work Within Scope; 52.243.2: Changes - Cost Reimbursement					
E. IMPORTANT: Contractor <input type="checkbox"/> is not <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
DUNS Number: 101163731							
The purpose of this modification is to 1)Revise the Performance Work Statement and; 2)							
Revise EPA-G-42-101 Contract Administration Representatives.							
TOCOR: Antony Tseng Max Expire Date: 09/30/2020 InvoiceApprover: Antony Tseng Alt Invoice							
App: Rosella O'Connor							
LIST OF CHANGES:							
Reason for Modification: Supplemental Agreement for work within scope							
Buyer changed from: Lisa Mitchell-Flinn; to: Lawrence Edelmann							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Lawrence Edelmann			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				 (Signature of Contracting Officer)		ELECTRONIC SIGNATURE 07/10/2019	

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	EP-C-17-044/68HE0C18F0855/P00001	2	2

NAME OF OFFEROR OR CONTRACTOR
 CADMUS GROUP, INC., THE

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>Contracting Officer changed from: Angela Lower; to: Lawrence Edelmann</p> <p>Payment:</p> <p>RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711</p> <p>Period of Performance: 09/27/2018 to 09/30/2019 .</p> <p>All other terms and conditions remain unchanged</p>				

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 3	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
P00002		See Block 16C		PR-R2-19-00425			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
CAD							
CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001							
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
CADMUS GROUP, INC., THE Attn: (b)(4) 100 5TH AVENUE SUITE 100 WALTHAM MA 02451							
				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO.			
				EP-C-17-044			
				68HE0C18F0855			
				10B. DATED (SEE ITEM 13)			
				09/27/2018			
CODE 101163731		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$29,729.00	
See Schedule							
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Unilateral - EPAAR 1552.217-71, Option to Extend Term of Contract; FAR 43.103(b), Administrative Changes						
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
DUNS Number: 101163731							
The purpose of this modification is to:							
1) Exercise Option Period 1; 2) Provide funding of \$29,729.00 for Option Period 1 (\$ (b)(4) to cost and \$ (b)(4) to fee) and; 3) Reduce the estimated cost and fixed fee of Option Period 1 from \$29,730.00 to \$29,729.00 (a reduction of \$1.00 to the cost pool) to correct an administrative error.							
TOCOR: Antony Tseng Max Expire Date: 09/30/2020 Invoice Approver: Antony Tseng Alt Invoice App: Rosella O'Connor Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Lawrence Edelmann			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				 (Signature of Contracting Officer)		ELECTRONIC SIGNATURE 08/15/2019	

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	EP-C-17-044/68HE0C18F0855/P00002	2	3

NAME OF OFFEROR OR CONTRACTOR
CADMUS GROUP, INC., THE

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>LIST OF CHANGES:</p> <p>Reason for Modification: Exercise an Option</p> <p>Obligated Amount for this Modification: \$29,729.00</p> <p>CHANGES FOR LINE ITEM NUMBER: 10001</p> <p>Total Amount changed from \$29,730.00 to \$29,729.00</p> <p>Obligated Amount for this Modification: \$29,729.00</p> <p>Exercised option</p> <p>CHANGES FOR DELIVERY LOCATION: R2</p> <p>Amount changed from \$29,730.00 to \$29,729.00</p> <p>NEW ACCOUNTING CODE ADDED:</p> <p>Account code:</p> <p>19-20-B-87FN-000BD4-2505-1987NE9008-001</p> <p>Beginning FiscalYear 19</p> <p>Ending Fiscal Year 20</p> <p>Fund (Appropriation) B</p> <p>Budget Organization 87FN</p> <p>Program (PRC) 000BD4</p> <p>Budget (BOC) 2505</p> <p>Job # (Site/Project)</p> <p>Cost Organization</p> <p>DCN-LineID 1987NE9008-001</p> <p>Quantity: 0</p> <p>Amount: \$29,729.00</p> <p>Percent: 99.99664</p> <p>Subject To Funding: N</p> <p>Payment Address:</p> <p>Payment:</p> <p>RTP Finance Center</p> <p>US Environmental Protection Agency</p> <p>RTP-Finance Center (AA216-01)</p> <p>109 TW Alexander Drive</p> <p>www2.epa.gov/financial/contracts</p> <p>Durham NC 27711</p> <p>Period of Performance: 10/01/2019 to 09/30/2020</p> <p>.</p> <p>All other terms and conditions remain unchanged</p>				

LOCAL CLAUSES EPA-B-32-101 LIMITATION OF FUNDS NOTICE – OPTION PERIOD 1

(a) Pursuant to the Limitation of Funds clause, incremental funding in the amount of \$(b)(4) is allotted to cover estimated cost. Funding in the amount of (b)(4) is provided to cover the corresponding increment of base fee. The amount allotted for costs is estimated to cover the contractor's performance through **09/30/2020**.

(b) When the contract is fully funded (i.e. the sum of the total estimated cost, base fee, award fee pool available for award, and award fee awarded, as set forth in the schedule of this contract), the Limitation of Cost clause shall become applicable.

(c) Recapitulation of Funds

EP-C-17-044; TO 68HE0C18F0855			
Option Period 1 (10/01/2019 -09/30/2020)			
	Estimated Cost	Fixed Fee	Cost Plus Fixed Fee
Modification 2	(b)(4)		\$29,729.00
Total Funded			\$29,729.00
Total Task Order			\$29,729.00
Balance Unfunded			\$0.00

LOCAL CLAUSES EPA-B-16-102 ESTIMATED COST AND FIXED FEE – OPTION PERIOD 1

(a) The estimated cost of this task order is (b)(4)

(b) The fixed fee (b)(4)

(c) The total estimated cost and fixed fee is **\$29,729.00**

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE		PAGE OF PAGES		
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2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
P00003		See Block 16C		PR-CAD-19-00141			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
CAD							
US Environmental Protection Agency							
26 West Martin Luther King Drive							
Mail Code: W136							
Cincinnati OH 45268-0001							
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
CADMUS GROUP, INC., THE							
Attn: (b)(4)				9B. DATED (SEE ITEM 11)			
100 5TH AVENUE							
SUITE 100							
WALTHAM MA 02451				x 10A. MODIFICATION OF CONTRACT/ORDER NO.			
				EP-C-17-044			
				68HE0C18F0855			
				10B. DATED (SEE ITEM 13)			
CODE 101163731				FACILITY CODE			
				09/27/2018			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
See Schedule							
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
X		D. OTHER (Specify type of modification and authority) Bilateral - FAR 52.243-02; Changes - Cost Reimbursement					
E. IMPORTANT: Contractor <input type="checkbox"/> is not <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
DUNS Number: 101163731							
The purpose of this modification is to: 1) Revise the PWS to shift work from the Base Period to Option Period 1; 2) Shift \$45,426.00 from the Base Period to Option Period 1 (\$ (b)(4)). This shift reduces the estimated cost and fixed fee of the Base Period from \$145,426.00 to \$100,000.00 and increases the estimated cost and fixed fee of Option Period 1 from \$29,729.00 to \$75,155.00 and; 3) Revise the Base period of performance from "09/27/2018 - 09/28/2019" to "09/27/2018 - 09/30/2019". This corrects an oversight in the award document and prevents a gap in performance, as the Option Period 1 period of performance begins on 10/01/2019.							
TOCOR: Antony Tseng Max Expire Date: 09/30/2020 Invoice Approver: Antony Tseng Alt Invoice App: Rosella O'Connor							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Lawrence Edelmann			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				 (Signature of Contracting Officer)		ELECTRONIC SIGNATURE 09/24/2019	

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	EP-C-17-044/68HE0C18F0855/P00003	2	5

NAME OF OFFEROR OR CONTRACTOR
CADMUS GROUP, INC., THE

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>LIST OF CHANGES:</p> <p>Reason for Modification: Supplemental Agreement for work within scope</p> <p>Total Amount for this Modification: \$0.00</p> <p>New Total Amount for this Version: \$175,155.00</p> <p>New Total Amount for this Award: \$175,155.00</p> <p>CHANGES FOR LINE ITEM NUMBER: 0001</p> <p>Total Amount changed from \$145,426.00 to \$100,000.00</p> <p>Obligated Amount for this Modification: -\$45,426.00</p> <p>Incremental Funded Amount changed from \$145,426.00 to \$100,000.00</p> <p>End Date changed from 28-SEP-19 to 30-SEP-19</p> <p>CHANGES FOR ACCOUNTING CODE:</p> <p>18-19-B-87FT-000BD4-2505-1887TE8024-001</p> <p>Amount changed from \$45,426.00 to \$0.00</p> <p>CHANGES FOR LINE ITEM NUMBER: 10001</p> <p>Total Amount changed from \$29,729.00 to \$75,155.00</p> <p>Obligated Amount for this Modification: \$45,426.00</p> <p>Incremental Funded Amount changed from \$29,729.00 to \$75,155.00</p> <p>NEW ACCOUNTING CODE ADDED:</p> <p>Account code:</p> <p>18-19-B-87FT-000BD4-2505-1887TE8024-001</p> <p>Beginning FiscalYear 18</p> <p>Ending Fiscal Year 19</p> <p>Fund (Appropriation) B</p> <p>Budget Organization 87FT</p> <p>Program (PRC) 000BD4</p> <p>Budget (BOC) 2505</p> <p>Job # (Site/Project)</p> <p>Cost Organization</p> <p>DCN-LineID 1887TE8024-001</p> <p>Quantity: 0</p> <p>Amount: \$45,426.00</p> <p>Percent: 100</p> <p>Subject To Funding: N</p> <p>Payment Address:</p> <p>Continued ...</p>				

NAME OF OFFEROR OR CONTRACTOR
CADMUS GROUP, INC., THE

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 Period of Performance: 09/27/2018 to 09/30/2020 . All other terms and conditions remain unchanged				

LOCAL CLAUSES EPA-B-32-101 LIMITATION OF FUNDS NOTICE – BASE PERIOD

(a) Pursuant to the Limitation of Funds clause, incremental funding in the amount of (b)(4) is allotted to cover estimated cost. Funding in the amount of (b)(4) is provided to cover the corresponding increment of base fee. The amount allotted for costs is estimated to cover the contractor's performance through **09/30/2019**.

(b) When the contract is fully funded (i.e. the sum of the total estimated cost, base fee, award fee pool available for award, and award fee awarded, as set forth in the schedule of this contract), the Limitation of Cost clause shall become applicable.

(c) Recapitulation of Funds

EP-C-17-044; TO F0855			
Base Period - (09/27/2018 -09/30/2019)			
	Estimated Cost	Fixed Fee	Cost Plus Fixed Fee
Contract Award	(b)(4)		\$145,426.00
Modification 3			(\$45,426.00)
Total Funded			\$100,000.00
Total Task Order			\$100,000.00
Balance Unfunded			\$0.00

LOCAL CLAUSES EPA-B-16-102 ESTIMATED COST AND FIXED FEE – BASE PERIOD

(a) The estimated cost of this task order is (b)(4)

(b) The fixed fee (b)(4)

(c) The total estimated cost and fixed fee is **\$100,000.00**

LOCAL CLAUSES EPA-B-32-101 LIMITATION OF FUNDS NOTICE – OPTION PERIOD 1

(a) Pursuant to the Limitation of Funds clause, incremental funding in the amount of (b)(4) is allotted to cover estimated cost. Funding in the amount of (b)(4) is provided to cover the corresponding increment of base fee. The amount allotted for costs is estimated to cover the contractor's performance through **09/30/2020**.

(b) When the contract is fully funded (i.e. the sum of the total estimated cost, base fee, award fee pool available for award, and award fee awarded, as set forth in the schedule of this contract), the Limitation of Cost clause shall become applicable.

(c) Recapitulation of Funds

EP-C-17-044; TO 68HE0C18F0855			
Option Period 1 (10/01/2019 -09/30/2020)			
	Estimated Cost	Fixed Fee	Cost Plus Fixed Fee
Modification 2	(b)(4)		\$29,729.00
Modification 3			\$45,426.00
Total Funded			\$75,155.00
Total Task Order			\$75,155.00
Balance Unfunded			\$0.00

LOCAL CLAUSES EPA-B-16-102 ESTIMATED COST AND FIXED FEE – OPTION PERIOD 1

- (a) The estimated cost of this task order is (b)(4)
- (b) The fixed fee is (b)(4)
- (c) The total estimated cost and fixed fee is **\$75,155.00**

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 3	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
P00004		See Block 16C		PR-CAD-19-00141			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
CAD							
US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001							
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
CADMUS GROUP, INC., THE Attn: JING HOFFMANN 100 5TH AVENUE SUITE 100 WALTHAM MA 02451							
				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO.			
				EP-C-17-044			
				68HE0C18F0855			
				10B. DATED (SEE ITEM 13)			
				09/27/2018			
CODE 101163731		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
See Schedule							
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Bilateral - Supplemental Agreement for work within scope						
E. IMPORTANT: Contractor <input type="checkbox"/> is not <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
DUNS Number: 101163731 This modification seeks to correct an error in the Base Period period of performance in modification P00003. P00003 revised the Base period of performance as follows: From "09/27/2018 - 09/28/2019" to "09/27/2018 - 09/30/2019". P00004 reverts the Base period of performance to the pre-P00003 dates of: "09/27/2018 - 09/28/2019". This modification also revises the Option Period 1 period of performance from "10/01/2019 - 09/30/2020" to "09/29/2019 - 09/28/2020". This corrects an oversight in the award document and prevents a gap in performance, as the Option Period 1 period of performance previously began on 10/01/2019.							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Lawrence Edelmann			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				 (Signature of Contracting Officer)		ELECTRONIC SIGNATURE 09/26/2019	
(Signature of person authorized to sign)							

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
EP-C-17-044/68HE0C18F0855/P00004PAGE OF
2 3NAME OF OFFEROR OR CONTRACTOR
CADMUS GROUP, INC., THE

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>Clause EPA-B-32-101 for the Base Period and Option Period 1 are attached. These clauses are only provided to reflect the revised period of performance associated with this modification.</p> <p>.</p> <p>TOCOR: Antony Tseng Max Expire Date: 09/30/2020 InvoiceApprover: Antony Tseng Alt Invoice App: Rosella O'Connor LIST OF CHANGES:</p> <p>Reason for Modification: Supplemental Agreement for work within scope Period Of Performance End Date changed from 30-SEP-20 to 28-SEP-20</p> <p>CHANGES FOR LINE ITEM NUMBER: 1 End Date changed from 30-SEP-19 to 28-SEP-19</p> <p>CHANGES FOR LINE ITEM NUMBER: 10001 Start Date changed from 01-OCT-19 to 29-SEP-19 End Date changed from 30-SEP-20 to 28-SEP-20</p> <p>Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 Period of Performance: 09/27/2018 to 09/28/2020 . All other terms and conditions remain unchanged</p>				

LOCAL CLAUSES EPA-B-32-101 LIMITATION OF FUNDS NOTICE – BASE PERIOD

(a) Pursuant to the Limitation of Funds clause, incremental funding in the amount of \$(b)(4) is allotted to cover estimated cost. Funding in the amount of \$(b)(4) is provided to cover the corresponding increment of base fee. The amount allotted for costs is estimated to cover the contractor's performance through **09/28/2019**.

(b) When the contract is fully funded (i.e. the sum of the total estimated cost, base fee, award fee pool available for award, and award fee awarded, as set forth in the schedule of this contract), the Limitation of Cost clause shall become applicable.

(c) Recapitulation of Funds

EP-C-17-044; TO F0855			
Base Period - (09/27/2018 -09/28/2019)			
	Estimated Cost	Fixed Fee	Cost Plus Fixed Fee
Contract Award	(b)(4)		\$145,426.00
Modification 3			(\$45,426.00)
Total Funded			\$100,000.00
Total Task Order			\$100,000.00
Balance Unfunded			\$0.00

LOCAL CLAUSES EPA-B-32-101 LIMITATION OF FUNDS NOTICE – OPTION PERIOD 1

(a) Pursuant to the Limitation of Funds clause, incremental funding in the amount of \$(b)(4) is allotted to cover estimated cost. Funding in the amount of \$(b)(4) is provided to cover the corresponding increment of base fee. The amount allotted for costs is estimated to cover the contractor's performance through **09/28/2020**.

(b) When the contract is fully funded (i.e. the sum of the total estimated cost, base fee, award fee pool available for award, and award fee awarded, as set forth in the schedule of this contract), the Limitation of Cost clause shall become applicable.

(c) Recapitulation of Funds

EP-C-17-044; TO 68HE0C18F0855			
Option Period 1 (09/29/2019 -09/28/2020)			
	Estimated Cost	Fixed Fee	Cost Plus Fixed Fee
Modification 2	(b)(4)		\$29,729.00
Modification 3			\$45,426.00
Total Funded			\$75,155.00
Total Task Order			\$75,155.00
Balance Unfunded			\$0.00

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

1

3

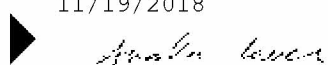
IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER 11/19/2018		2. CONTRACT NO. (If any) EP-C-17-044		6. SHIP TO: a. NAME OF CONSIGNEE Region 10	
3. ORDER NO. 68HERC19F0023		4. REQUISITION/REFERENCE NO. PR-R0-18-00266			
5. ISSUING OFFICE (Address correspondence to) CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001				b. STREET ADDRESS US Environmental Protection Agency 1200 Sixth Avenue, Suite 900	
				c. CITY Seattle	e. ZIP CODE 98101
7. TO: (b)(4)				f. SHIP VIA	
a. NAME OF CONTRACTOR CADMUS GROUP, INC., THE				8. TYPE OF ORDER	
b. COMPANY NAME				<input type="checkbox"/> a. PURCHASE <input checked="" type="checkbox"/> b. DELIVERY REFERENCE YOUR: Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.	
c. STREET ADDRESS 100 5TH AVENUE SUITE 100				Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
d. CITY WALTHAM		e. STATE MA	f. ZIP CODE 02451		
9. ACCOUNTING AND APPROPRIATION DATA See Schedule				10. REQUISITIONING OFFICE Region 10	

11. BUSINESS CLASSIFICATION (Check appropriate box(es))				12. F.O.B. POINT	
<input type="checkbox"/> a. SMALL <input checked="" type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. SERVICE-DISABLED VETERAN-OWNED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM <input type="checkbox"/> h. EDWOSB					
13. PLACE OF		14. GOVERNMENT B/L NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) 03/31/2020	
a. INSPECTION Destination	b. ACCEPTANCE Destination			16. DISCOUNT TERMS	

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: 101163731 Ocean Dredged Material Disposal (ODMDS) Monitoring, Umpqua North and South ODMDSs, Siuslaw North and South ODMDSs, Oregon TOCOR: Jayne Carlin Max Expire Date: Continued ...					
18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOTAL (Cont. pages)
21. MAIL INVOICE TO:						
a. NAME RTP Finance Center		\$451,204.33				17(i) GRAND TOTAL
b. STREET ADDRESS (or P.O. Box) US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts		\$451,204.33				
c. CITY Durham		d. STATE NC	e. ZIP CODE 27711			

22. UNITED STATES OF AMERICA BY (Signature) 		23. NAME (Typed) Angela Lower TITLE: CONTRACTING/ORDERING OFFICER	
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ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

PAGE NO
2

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER 11/19/2018	CONTRACT NO. EP-C-17-044	ORDER NO. 68HERC19F0023
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ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
0001	<p>03/31/2020 InvoiceApprover: Jayne Carlin Alt Invoice App: Chris Laabs Admin Office: CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001 Period of Performance: 11/19/2018 to 03/31/2020</p> <p>Base tasks for Ocean Dredged Material Disposal Site (ODMDS) Monitoring, Umpqua North and South ODMDSs, Siuslaw North and South ODMDSs, Oregon in accordance with the attached PWS.</p> <p>Accounting Info: 18-19-B-87DE-000BD4-2505-1987EE9001-00 1 BFY: 18 EFY: 19 Fund: B Budget Org: 87DE Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 1987EE9001-001 Funding Flag: Partial Funded: \$277,343.76</p> <p>Accounting Info: 18-19-B-87DE-000B89-2505-1987EE9001-00 2 BFY: 18 EFY: 19 Fund: B Budget Org: 87DE Program (PRC): 000B89 Budget (BOC): 2505 DCN - Line ID: 1987EE9001-002 Funding Flag: Partial Funded: \$54,070.35</p>				331,414.11	
0002	<p>Optional Task A for Ocean Dredged Material Disposal Site (ODMDS) Monitoring, Umpqua North and South ODMDSs, Siuslaw North and South ODMDSs, Oregon in accordance with the attached PWS.</p> <p>Accounting Info: 18-19-B-87DE-000B89-2505-1987EE9001-00 2 BFY: 18 EFY: 19 Fund: B Budget Org: 87DE Program (PRC): 000B89 Budget (BOC): 2505 DCN - Line ID: 1987EE9001-002 Continued ...</p>				83,364.78	

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$414,778.89

ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

PAGE NO
3

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER 11/19/2018	CONTRACT NO. EP-C-17-044	ORDER NO. 68HERC19F0023
-----------------------------	-----------------------------	----------------------------

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
0003	<p>Funding Flag: Partial Funded: \$83,364.78</p> <p>Optional Task B for Ocean Dredged Material Disposal Site (ODMDS) Monitoring, Umpqua North and South ODMDSS, Siuslaw North and South ODMDSS, Oregon in accordance with the attached PWS.</p> <p>Accounting Info: 18-19-B-87DE-000B88-2505-1987EE9001-00 3 BFY: 18 EFY: 19 Fund: B Budget Org: 87DE Program (PRC): 000B88 Budget (BOC): 2505 DCN - Line ID: 1987EE9001-003 Funding Flag: Partial Funded: \$22,716.63 Accounting Info: 18-19-B-87DE-000B89-2505-1987EE9001-00 2 BFY: 18 EFY: 19 Fund: B Budget Org: 87DE Program (PRC): 000B89 Budget (BOC): 2505 DCN - Line ID: 1987EE9001-002 Funding Flag: Partial Funded: \$13,708.81</p>				36,425.44	

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$36,425.44

PERFORMANCE WORK STATEMENT

TSAWP IDIQ MULTIPLE-AWARD CONTRACT SOLICITATION PR-R0-18-00266

OCEAN DREDGED MATERIAL DISPOSAL SITE (ODMDS) MONITORING

**UMPQUA ODMD Sites
WINCHESTER BAY, OREGON**

**SIUSLAW ODMD Sites
FLORENCE, OREGON**

With Optional Effort
Vessel Lease
With Optional Effort
Sidescan Sonar Survey

Table of Contents

Section 1.0 Project Description

Section 2.0 Description of Tasks

Section 3.0 Attachments

Section 4.0 Performance Work Statement – General Requirements

Section 5.0 Schedule of deliverables and milestones

Section 6.0 Optional Effort – Vessel Lease

Section 7.0 Optional Effort – Sidescan sonar survey

SECTION 1.0 PROJECT DESCRIPTION

1.1 Background

Ocean disposal sites are designated by the U.S. Environmental Protection Agency (EPA) to minimize environmental effects of disposal to the area or region in which the site is located. Most ocean disposal occurring today comes from dredging operations to maintain navigation channels. Many of these ocean disposal sites are located offshore of major ports, harbors, and marinas nationwide and are very important for maintaining safe navigation for commercial, military, and private vessels. Disposal operations must be conducted in a manner that allows each site to operate without adverse impacts to the coastal marine environment in excess of what is expected under the given site use requirements.

These sites have requirements that are based on site designation parameters established in the Marine Protection, Research, and Sanctuaries Act (MPRSA) and site management and monitoring plan (SMMP) for each ocean disposal site. Each SMMP typically incorporates a tiered monitoring structure to assess potential environmental issues specific for each site and the geographic area in which it is located. Site monitoring activities include, but are not limited to: sediment sampling and analyses for chemical content and concentrations; sediment sampling for benthic community analyses; and geophysical surveys to determine wide area distribution of native sea bed features and deposits of dredged material disposed at EPA-designated ocean dredged material disposal sites (ODMDS).

EPA has responsibility for site monitoring in accordance with requirements specified at 40 CFR 228.13. This Performance Work Statement (PWS) identifies survey activities to be implemented in accordance with an EPA-approved survey plan for the EPA-designated Umpqua North and South ODMDs and the Siuslaw North and South ODMDs. Region 10 designated the Umpqua North ODMDs and South ODMDs offshore of Winchester Bay, Oregon pursuant to the MPRSA on April 24, 2009 (74 FR 18648). Region 10 designated the Siuslaw North ODMDs and Siuslaw South ODMDs offshore of Florence, Oregon pursuant to the MPRSA on April 29, 2010 (75 FR 5708).

An SMMP was jointly prepared by the EPA and U.S. Army Corps of Engineers (Corps) to describe the management and monitoring requirements for each pair of sites. The SMMP for the Umpqua North and South ODMD sites will be revised and updated in 2019 whereas the SMMP for the Siuslaw North and South ODMD sites will be revised and updated in 2020.

This PWS consists of field work focused on characterizing the sediment grain size, chemical contaminants, benthic infaunal communities and epibenthic infaunal communities inside and outside the disposal sites. The collection and analysis of these data satisfies the routine monitoring needed to inform and update both SMMPs.

1.2 Site Description - Umpqua North and South ODMDs

The EPA designated two ocean disposal sites offshore of the Umpqua River, Umpqua North and Umpqua South. The coordinates and dimensions of these sites, referenced to North American Datum (NAD 1983), are:

Umpqua North ODMDs

43° 41' 23.09" N,	124° 14' 20.28" W
43° 41' 25.86" N,	124° 12' 54.61" W
43° 40' 43.62" N,	124° 14' 17.85" W
43° 40' 46.37" N,	124° 12' 52.74" W

Size: 6,300 feet long by 4,000 feet wide

Area: 578 acres

Depth: 30-120 feet

Distance from shore: ~ 0.5 to 1.4 nautical miles

Umpqua South ODMDs

43° 39' 32.31" N,	124° 14' 35.60" W
43° 39' 35.23" N,	124° 13' 11.01" W
43° 38' 53.08" N,	124° 14' 32.94" W
43° 38' 55.82" N,	124° 13' 08.36" W

Size: 6,300 feet long by 4,000 feet wide

Area: 578 acres

Depth: 20-120 feet

Distance from shore: ~ 0.5 to 1.4 nautical miles

1.3 Objective - Umpqua North and South ODMS

The purpose is to collect physical, chemical, and biological data at the Umpqua North and South ODMSs that informs a trend assessment evaluation of environmental effects at the site from the disposal of dredged material. The site parameters to be assessed are:

1.3a Sediment Physical Analysis. Collect 20 samples within the Umpqua North ODMS and 20 samples outside the North ODMS, and 8 samples within and 8 samples outside the South ODMSs, which will be assessed for grain size and total organic carbon. Total number of samples to be collected is 56.

1.3b Sediment Chemical Analysis. Collect 10 sediment samples within the Umpqua North ODMS and analyze the samples for chemicals of concern. These data are to ensure that disposal of dredged material is not causing contamination of the benthic communities.

1.3c Sediment Benthic Infaunal Analysis. Collect 20 samples within the Umpqua North ODMS and 20 samples outside the North ODMS, and 8 samples within and 8 samples outside the South ODMSs, to assess benthic infaunal community diversity. Total number of samples to be collected is 56.

1.3d Trawl. Conduct 6 benthic trawls, approximately 15 minutes in length along bathymetric contours each, within the Umpqua North and 6 trawls outside the site as reference. Conduct 6 benthic trawls, approximately 15 minutes in length, within the South ODMS and 6 trawls outside the site as reference. The trawls will be used to assess epibenthic community diversity.

1.3e Video Sled. Assist EPA with deployment and retrieval of EPA-supplied video sled. Video sled tows will occur along the same transects as the trawls. Video sled tows will occur prior to trawling. Once video has been collected, the Contractor shall review the video to assess seafloor substrate type, epibenthic community diversity categorized into common groupings such as flatfish, sea stars, sand dollars, Dungeness crab, and other discernable phylogenetic groups, and conduct a comparison of the findings from the video sled with the trawl findings.

1.3f Water Quality Measurements. EPA will provide a water quality probe and be responsible for deployment and retrieval at 24 stations. These deployments will co-occur at sediment sampling stations. The mention of this component in the PWS is so that the Contractor consider this need as part of the survey logistics to ensure EPA can achieve this task.

1.4 Site Description - Siuslaw North and South ODMS

The EPA designated two ocean disposal sites offshore of the Siuslaw River, Siuslaw North and Siuslaw South. The coordinates and dimensions of these sites, referenced to North American Datum (NAD 1983), are:

Siuslaw North ODMS

44° 01' 31.03" N,	124° 10' 12.92" W
44° 01' 49.39" N,	124° 10' 02.85" W
44° 01' 31.97" N,	124° 09' 01.86" W
44° 01' 13.45" N,	124° 09' 11.41" W

Size: 4,921 feet long by 1,944 feet wide
Area: 222 acres
Depth: 30-115 feet
Distance from shore: ~ 1 nautical mile

Siuslaw South ODMDs

44° 00' 46.72" N, 124° 10' 26.55" W
44° 01' 06.41" N, 124° 10' 24.45" W
44° 01' 04.12" N, 124° 09' 43.52" W
44° 00' 44.45" N, 124° 09' 45.63" W

Size: 2,977 feet long by 1,944 feet wide
Area: 133 acres
Depth: 79 to 125 feet
Distance from shore: ~ 1 nautical miles

1.5 Objective – Siuslaw North and South ODMDs

The purpose is to collect physical, chemical, and biological data at the Siuslaw North and South ODMDs that informs a trend assessment evaluation of environmental effects at the site from the disposal of dredged material. The site parameters to be assessed are:

1.5a Sediment Physical Analysis. Collect 10 samples within the Siuslaw North ODMD and 10 samples outside the North ODMD, and 5 samples within and 5 samples outside the South ODMD, which will be assessed for grain size and total organic carbon. Total number of samples to be collected is 30.

1.5b Sediment Chemical Analysis. Collect 10 sediment samples within the Siuslaw North ODMD and analyze the samples for chemicals of concern. These data are to ensure that disposal of dredged material is not causing contamination of the benthic communities.

1.5c Sediment Benthic Infaunal Analysis. Collect 10 samples within the Siuslaw North ODMD and 10 samples outside the Siuslaw North ODMD, and 5 samples within and 5 samples outside the South ODMD, to assess benthic infaunal community diversity. Total number of samples to be collected is 30.

1.5d Trawl. Conduct 6 benthic trawls, approximately 10 minutes in length each, within the Siuslaw North and outside the site as reference. Conduct 6 benthic trawls, approximately 10 minutes in length each, within the South ODMD and 6 trawls outside the site as reference. The trawls will be used to assess epibenthic community diversity.

1.5e Video Sled. Assist EPA with deployment and retrieval of EPA-supplied video sled. Video sled tows will occur along the same transects as the trawls. Video sled tows will occur prior to trawling. Once video has been collected, the Contractor shall review the video to assess seafloor substrate type, epibenthic community diversity categorized into common groupings such as flatfish, sea stars, sand

dollars, Dungeness crab, and other discernable phylogenetic groups, and conduct a comparison of the findings from the video sled with the trawl findings.

1.5f Water Quality Measurements. EPA will provide a water quality probe and be responsible for deployment and retrieval at 16 stations. These deployments will co-occur at sediment sampling stations. The mention of this component in the PWS is so that the Contractor consider this need as part of the survey logistics to ensure EPA can achieve this task.

SECTION 2.0 DESCRIPTION OF TASKS

Task 1 Project Management and Planning

Subtask 1.1 Technical and Cost Progress Report with quarterly QA Section

The Contractor shall provide a monthly progress report in accordance with contract requirements, which will be used for invoice review purposes. The Contractor shall provide additional monthly reports that includes the funding status and Contractor's technical lead for each project. All reporting shall be provided in accordance with the PWS Sections G & H: ***Reporting and Deliverables (General Performance)***. In addition, these reports will list by task the amount of work completed and include a table of hours by personnel and amount spent for each task. The reports also will include a quality assurance/quality control (QA/QC) section that summarizes QA/QC steps taken in the performance of work during the reporting period.

The Contractor shall submit an email to the Task Order Contracting Officer's Representative (TOCOR) that proposes a standardized naming convention and version control for all deliverables associated with the PWS. This system will ensure that deliverables are clearly named and dated and that the sequence of versions of a document is clear. The TOCOR will review the email and then provide the contractor with a written notification of approval or required edits. After receiving notification of approval, the Contractor shall use this standardized convention for all deliverables associated with the PWS.

Subtask Task 1.1 Deliverables:

- Monthly progress reports
- Email on standardized naming convention and version control for all deliverables.

Subtask 1.2 Communication

The Contractor shall participate in a kickoff conference call with the TOCOR and technical team (TOCOR will provide a list of people to invite). The Kickoff Meeting with the TOCOR shall cover the following topics: points of contact, roles and responsibilities, quality assurance protocols, timelines, the schedule of benchmarks, milestones and deliverables, monthly technical progress reports, and general TO administrative information.

Other telephone conference calls will be held on an as-needed basis and are estimated to occur 3-4 times prior to the survey and then 3-4 times after the survey for approximately 30 minutes to 1 hour each per meeting. Conference call dates and times shall be mutually agreed to by the TOCOR, EPA

Technical Lead and Contractor. At a minimum, conference call documentation shall be prepared by the Contractor as follows:

- Meeting agendas shall be prepared for each meeting and e-mailed to the TOCOR, EPA Technical Lead, and /or any additional personnel as determined by the EPA Technical Lead at least two (2) days prior to the meeting.
- A list of action items specific to each meeting participant shall be developed to ensure a record of all discussions and decisions from the previous meeting are maintained. This shall be provided along with the meeting agenda.
- Contractor shall e-mail draft meeting minutes, to include any updates to the action items, to the TOCOR no later than three (3) calendar days following any meeting.
- Contractor shall amend and finalize meeting minutes within five (5) calendar days following receipt of comments from the TOCOR and/or EPA Technical Lead.

Coordination of task activities is critical to the successful completion of this task order. Coordination for survey planning will need to include, at a minimum, EPA TOCOR, EPA Technical Lead, EPA Chief Scientist, USACE Field Personnel, and the Contractor(s). Every effort shall be made to resolve critical issues in a timely manner before they become problems. Communication by telephone and e-mail with the EPA TOCOR and EPA Technical Lead is strongly encouraged. The Contractor shall notify the EPA TOCOR by telephone and email of any problems, delays or questions as soon as they arise, including immediate notification of any quality assurance issues and project delays. The Contractor shall provide corrective actions needed to solve the problems.

Subtask Task 1.2 Deliverables:

- Conference calls summaries,
- Immediate notification to TOCOR of any delays
- Timely communication.

See Contract Level Quality Assurance Surveillance Plan for specific performance standards and indicators related to this task. All written materials must be compliant with Section 508 of the Americans with Disabilities Act.

Subtask 1.3 QAPP

The Contractor shall provide a Quality Assurance Project Plan (QAPP) for EPA approval. The Contractor should use the guidance document found in EPA QA/G-5, Guidance on Quality Assurance Project Plans, and the QAPP provided as Attachment 3 as reference. The QAPP will provide detail to demonstrate that:

- The project technical and quality objectives (e.g., Data Quality Objectives) are identified;
- The intended measurements or data acquisition methods are appropriate for achieving project objectives;
- Assessment procedures are sufficient for confirming that data of the type and quality needed and expected are obtained; and
- Any limitations on the use of the data can be identified and documented.

The Contractor shall submit a draft QAPP 30 days after Task Order Award. The QAPP will propose latitude and longitude coordinates for sediment sampling stations, trawl starting locations, sled starting locations (see Attachment B for guidance). A final QAPP will be submitted within 10 working days of receipt of comments from the EPA Technical Lead on the draft document. The QAPP will be finalized and approved by EPA no later than 3 weeks prior to any field survey activities.

Subtask Task 1.3 Deliverables:

- Draft QAPP, Response to Comments, Final QAPP

1.4 Staffing

The chart below lists the Government employees working on this Task Order. The Contractor will be notified by the Task Order COR when assigned roles have changed and then a task order modification will make the formal change.

Name	Title	Phone Number	E-Mail
Damon Highsmith	EPA CL COR	202-566-2504	Highsmith.damon@epa.gov
Jayne Carlin	EPA Task Order Contracting Officer's Representative	206-553-8512	Carlin.jayne@epa.gov
Chris Laabs	EPA Alternate Task Order Contracting Officer's Representative	202-566-1223	Laabs.chris@epa.gov
Bridgette Lohrman	EPA Technical Lead	503-326-4006	lohрман.bridgette@epa.gov
Joel Salter	EPA Chief Scientist	503-326-2653	Salter.joel@epa.gov
Angela Lower	Contracting Officer	513-487-2036	Lower.angela@epa.gov
Lisa Mitchell-Flinn	Contracts Specialist	513-487-2852	Mitchell-flinn@epa.gov

Task 2 Field Support

Subtask 2.1 Field Technical Services and Survey Support

The Contractor shall provide technical personnel who possess oceanographic survey skills to collect sediment samples, conduct bottom trawling, and assist with deployment and retrieval of a benthic video sled/water quality probe.

The Contractor shall supply any other equipment or accessories necessary to successfully accomplish survey objectives, including, but not limited to, appropriate sample jars and lids, labels, blanks, coolers, custody seals, and chain-of-custody forms for physical, chemical, and biological samples, and transportation of samples to the appropriate laboratory.

Subtask Task 2.1 Deliverable:

- See Subtask 3.1 Deliverable

Subtask 2.1a Physical Sediment Sampling. The Contractor shall provide sediment sample containers, chain-of-custody, storage containers, ice, and other appropriate materials to collect,

prepare, store, label, and ship approximately 86 sediment samples to contract laboratories for grain size and total organic carbon analyses per the Pacific Northwest Sediment Evaluation Framework (2016) (Attachment D). This number of samples does not include any additional samples that may be needed for field or laboratory Quality Assurance purposes. The Contractor shall provide the target sampling coordinates, based on Attachment B-1, in the draft QAPP. The Contractor shall provide a back-up sediment sampler to the Gray O'Hara box corer; the box corer will be supplied by the USACE field personnel.

Subtask Task 2.1a Deliverable:

- See Subtask Task 3.1 Deliverable

Subtask 2.1b Chemical Sediment Sampling. The Contractor shall provide sediment sample containers, chain-of-custody, storage containers, ice, and other appropriate materials to collect, prepare, store, label, and ship approximately 20 sediment samples to contract laboratories for chemical analyses per the Pacific Northwest Sediment Evaluation Framework (2016) (Table 5-1, Attachment C). Chemical analysis by the contractor shall include the following: chlorinated pesticides, tributyltin bulk, and percent solids. Chemical constituents to be analyzed by the EPA Manchester Laboratory would be: metals, mercury, polycyclic aromatic hydrocarbons, total petroleum hydrocarbons, and PCB aroclors. The Contractor will prepare and ship sediment samples to the contract laboratory. The Contractor will prepare the sediment samples and keep them on ice for EPA staff to deliver to EPA laboratory. The contractor shall provide the target sampling coordinates, based on Attachment B and C, in the draft QAPP.

The EPA Chief Scientist will record field notes, manage sample jars, and prepare laboratory chains-of-custody for the samples to be analyzed by the EPA Manchester Laboratory.

Subtask Task 2.1b Deliverable:

- See Subtask Task 3.1 Deliverable

Subtask 2.1c. Benthic Infaunal Sediment Sampling. The Contractor shall conduct sediment sampling for benthic community analyses. The Contractor shall collect approximately 86 benthic samples, filter the samples through a 0.5 millimeter (mm) sieve and preserve the retained material. The Contractor shall provide the target sampling coordinates in the draft QAPP, based on Attachment B and C.

For Tasks 2.2a, 2.2b, and 2.2c, Contractor personnel shall hold station and record the water depth and geographic location of each sample attempt. Assume no more than three (3) deployments will be required per station for the Contractor to collect the quantity of material needed to run the required analyses.

Subtask Task 2.1c Deliverable:

- See Subtask Task 3.1 Deliverable

Subtask 2.1d Trawls. The Contractor shall conduct a total of 48 benthic trawls. The trawls will be approximately 15 minutes in duration at the Umpqua sites and 10 minutes in duration at the Siuslaw sites; trawl duration is dictated by ability to conduct trawls wholly within the disposal sites. The Contractor shall sort the epibenthic fauna collected, identify individuals to the lowest practical taxa, record fish length, and return organisms to the ocean. The Contractor shall provide and operate an otter

trawl. The trawl shall be a 12' semi-balloon otter trawl with a ¼" mesh liner. The Contractor shall provide the coordinates for the beginning of the trawls in the draft QAPP, based on Attachment B-1 and seafloor mapping to be conducted by EPA prior to the survey.

Subtask Task 2.1d Deliverable:

- See Subtask Task 3.1 Deliverable

Subtask 2.1e. Video sled. The Contractor shall assist with mobilization, deployment, and retrieval of the video sled for 48 video transects. EPA will provide the sled and associated cable and data loggers. The Contractor shall provide the coordinates for the beginning of the transects, based on Attachment B-1, in the draft QAPP. The video sled surveys will occur prior to the trawls to ensure avoidance of important habitat (including sand dollar beds) at and in the vicinity of the Umpqua disposal sites.

Subtask Task 2.1e Deliverable

- See Subtask 3.1 Deliverable

Subtask 2.1f. Water Quality Measurements. EPA will provide a water quality probe and be responsible for deployment and retrieval at 40 stations. The Contractor will consider this need as part of the survey logistics to ensure EPA can achieve this task.

Task 3: Data Analysis

Subtask 3.1 Survey Report

The Contractor shall provide a Field Report documenting activities that occurred during the survey(s) including but not limited to: survey methodology, summary of field operations including daily field operations, deviations from the QAPP. The Contractor shall record field notes during sample collection events.

Subtask Task 3.1 Deliverable:

- Draft Field Report, response to comments, final Field Report

Subtask 3.2 Physical and Chemical Sediment Samples

All sediment samples shall be analyzed in accordance with the 2016 "Sediment Evaluation Framework for the Pacific Northwest" (SEF) for the purpose of physical and chemical parameters. Table 5-1 (Recommended Sediment Analytical Methods and Sample Quantitation Limits) of the SEF provides the sediment preparation and analysis methods and sample quantitation limits (e.g. method reporting limits) that are required for this task order (Attachment D).

For undetected chemicals, the laboratory must achieve method detection limits (MDLs) or limits of detection (LODs) below the SEF marine screening levels, in accordance with *Table 6-3 (Bulk Sediment Screening Levels for Chemicals of Concern)* of the SEF. Table 6-2 provides marine benthic toxicity screenings levels necessary for MDL and LOD screening.

Prior to submitting the final data report, if the contract laboratory is unable to achieve sufficiently low MDLs for particular analytes, the Contractor shall provide the reason(s) for the elevated MDL(s).

In the Physical Analysis report, the Contractor shall:

For Umpqua data:

1. Compare the 20 stations within the Umpqua North site to the 20 stations outside the North Umpqua site;
2. Compare the 16 stations associated with the (unused) Umpqua South site to the 20 reference stations to the north of the North Umpqua site. The intent of this comparison is to determine whether these southern stations can be used as additional reference data.
3. Compare the 16 stations, as identified in the QAPP, associated with the (unused) South Umpqua site to stations from the same area sampled in 2007 to assess any changes over time at this unused site. EPA to provide physical data to Contractor from 2007.

For Siuslaw data:

1. Compare the 10 stations within the Siuslaw North site to the 10 stations outside the Siuslaw North site;
2. Compare the 10 stations, as identified in the QAPP, associated with the (unused) Siuslaw South site to the 10 reference stations to the north of the North Siuslaw site. The intent of this comparison is to determine whether these southern stations can be used as additional reference data.
3. Compare the 10 stations, as identified in the QAPP, associated with the (unused) Siuslaw South site to stations from the same area sampled in 2008 to assess any changes over time at this unused site. EPA to provide physical data to Contractor from 2008.

Subtask Task 3.2 Deliverable:

- Draft physical and chemical report and Excel spreadsheet with results tabled, compared to SEF 2016 screening levels for chemical results, and final physical and chemical report and spreadsheets.

Subtask 3.3 Benthic Infaunal Sediment Samples

The Contractor shall sort each sediment sample under a microscope into four (4) groups: Annelids, mollusks, crustaceans and miscellaneous. The groups shall be identified to the lowest practical taxa and counted. The Contractor shall determine species density, diversity, richness and equitability within and outside the disposal site. The contractor shall provide a written report of the methods used for sample collection, an excel spreadsheet with the benthic data by station, the results of the sampling including an analysis of the following:

For Umpqua data:

4. Compare the 20 stations within the Umpqua North site to the 20 stations outside the North Umpqua site;
5. Compare the 16 stations, as identified in the QAPP, associated with the (unused) Umpqua South site to the 20 stations to the north of the Umpqua North site. The intent of this comparison is to determine whether these southern stations can be used as additional reference data.

6. Compare the 16 stations, as identified in the QAPP, associated with the (unused) Umpqua South site to stations from the same area sampled in 2007 to assess any changes over time at this unused site. EPA to provide physical data to Contractor from 2007.

For Siuslaw data:

4. Compare the 10 stations within the Siuslaw North site to the 10 stations outside the Siuslaw North site;
5. Compare the 10 stations, as identified in the QAPP, associated with the (unused) Siuslaw South site to the 10 stations to the north of the Siuslaw North site. The intent of this comparison is to determine whether these southern stations can be used as additional reference data.
6. Compare the 10 stations, as identified in the QAPP, associated with the (unused) Siuslaw South site to stations from the same area sampled in 2008 to assess any changes over time at this unused site. EPA to provide physical data to Contractor from 2008.

Subtask Task 3.3 Deliverable:

- Draft and final written report of the methods used for sample collection, the spreadsheet with the raw data of species by station, results of the sampling, and discussion of any differences between the benthic infaunal community structure within each ODMDS as compared to sites' respective reference area.

Subtask 3.4 Benthic trawls

The Contractor shall provide a written report which describes methods used for sample collection, the results of the sampling, and a discussion of any differences between the epifaunal community structure within each ODMDS as compared to the trawls outside the associated disposal site.

Subtask Task 3.4 Deliverable:

- Draft and final written report which describes methods used for sample collection, a spreadsheet with the raw data of species, count, and length (when appropriate), the results of the sampling, and a discussion of any differences between the epifaunal community structure within the ODMDS as compared to outside the ODMDS.

Subtask 3.5 Benthic video sled

Once the video is collected, the Contractor shall review the video to assess epibenthic community diversity and conduct a comparison of the findings from the video sled with the trawl findings. The Contractor shall provide a written report of the methods used for sample collection, the statistical analyses used to determine any epifaunal community differences between inside each ODMDS and their respective reference transects. The Contractor shall also conduct an analysis of the findings between the results from the trawl survey and the video sled survey.

Subtask Task 3.5 Deliverables:

- Draft and final written report that includes:
 - The methods used for sample collection, the statistical analyses used to determine any epifaunal community differences between inside each ODMDS and their respective reference transects;
 - Analysis of the findings between the results from the trawl survey and the video sled survey as it relates to epibenthic community diversity;

- Recommendations for improving the analysis of epibenthic community structure using trawl and towed video sled data collection methods.

Subtask 3.6 Data QA/QC

The Contractor shall review all data and provide data files in appropriate specified EPA electronic (digital) format/s, which may include but are not limited to: Microsoft Office/Excel, Extensible Markup Language (XML), Comma-Delimited format (CSV), Extended Triton format (XTF), Portable Document Format (PDF), Joint Photographic Experts Group (JPEG), and Geographic Information Systems (GIS)-compatible formats.

Subtask Task 3.8 Deliverables:

- Data files in appropriate specified EPA electronic (digital) format/s

Task 4: Data Management - Managing and Archiving Data Support

The Contractor shall provide support in managing and archiving data after completion of the survey, including utilization of (1) appropriate backup media; and (2) configuration of appropriate formats and features for upload into EPA-supported databases as appropriate (i.e., STORET WQX- <http://www.epa.gov/storet/wqx/>; see note below).

The Contractor shall submit all data collected to Water Quality EXchange (WQX), in addition to submitting it to the EPA TOCOR. WQX is a tool to share physical, chemical, biological, habitat, metric, and index data over the Internet. WQX uses EPA's Exchange Network to transfer water quality monitoring data to EPA STORET. List of data fields can be found at: <http://www.exchangenetwork.net/exchanges/water/wqx.htm>.

Data can also be organized and submitted using WQX Web which is a MS Excel based tool located at: http://www.epa.gov/storet/wqx/wqxweb_downloads.html.

The contract laboratory(ies) shall submit to the Contractor, an Electronic Data Deliverable (EDD) of the sediment quality data suitable for entry into the Washington Department of Ecology's Environmental Information Management (EIM) Database. The contract laboratory(ies) shall also submit to the Contractor, an electronic version of the final report that includes QC data for conventional testing. The Contractor shall perform a data quality review of the conventional data before submitting the deliverables to the Government for review and approval.

Task 4 Deliverables:

- Appropriate data backup media
- Configuration of appropriate formats and features for upload into EPA-supported databases as appropriate (i.e., STORET WQX- <http://www.epa.gov/storet/wqx/>; see note below).
- All data into Water Quality EXchange (WQX), in addition to submitting it to the EPA TOCOR.
- Data can also be organized and submitted using WQX Web which is a MS Excel based tool located at: http://www.epa.gov/storet/wqx/wqxweb_downloads.html.
- An Electronic Data Deliverable (EDD) of the sediment quality data suitable for entry into the Washington Department of Ecology's Environmental Information Management (EIM) Database.

- Entry of the aforementioned EDD into the Washington Department of Ecology's Environmental Information Management Database;
- An electronic version of the final report that includes QC data for conventional testing.

SECTION 3.0 ATTACHMENTS

Attachment A – Map of proposed grab sample stations, trawls, and sled transects for Umpqua survey. Coordinates to be determined by the Contractor during development of QAPP.

Attachment B – Map of proposed sidescan sonar survey area for the Umpqua North and South ODMD sites. Final area with coordinates to be determined by the Contractor during development of QAPP.

Attachment C – Map of proposed grab sample stations, trawls, and sled transects for Siuslaw survey. Coordinates to be determined by the Contractor during development of QAPP.

Attachment D - Sediment Evaluation Framework for the Pacific Northwest (2016).
<https://www.epa.gov/ocean-dumping/sediment-evaluation-framework-pacific-northwest>

Attachment E – Example Quality Assurance Project Plan (QAPP) (2017)

Attachment F - Physical characteristics of the Box Corer Sampler and Benthic Video Sled

SECTION 4.0 PERFORMANCE WORK STATEMENT – GENERAL REQUIREMENTS

4.1. Validation of Section 508 Compliance of Task Order Deliverables

The Contractor shall support the TOCOR in conducting a “Final Deliverable Validation” to ensure compliance with Section 508 and the Federal Acquisition Regulations (FAR) related to “electronic and information technology (EIT) deliverables”. The Contractor shall furnish certification, in writing, to the TOCOR that the Contractor has complied with EPAAR Clause 1552.211-79 “Compliance with EPA Policies for Information Resources Management”, including the requirement that all electronic and information technology (EIT) deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/>.

4.2. Notification of Completion of Task Order Deliverables

In the event the Task Order reaches thirty (30) days prior to the end of the Period of Performance in a given period, and the contractor assesses that the contractor will not be able to satisfactorily complete any of the benchmarks, milestones, or deliverables by the end of the Performance Period, the contractor shall notify the TOCOR and the Contracting Officer (CO) immediately, in writing. Within five (5) business days of said notification, the TOCOR, in coordination with the CO, will provide technical direction concerning use of the remaining funding to prepare and furnish to the TOCOR: draft deliverables, interim work products, and any necessary working files in an electronic format which is supported by EPA.

4.3. Contractor Identification

Contractor personnel shall always identify themselves as Contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative.

The Contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the TOCOR.

SECTION 5.0 SCHEDULE OF DELIVERABLES AND MILESTONES

Actual dates of sample collecting shall be coordinated through the Contracting Officer's Representative (COR). Task order milestones are shown below.

Deliverable	Due Date
Task 1 – Deliverables	
Subtask 1.1: Technical and Cost Progress Report with quarterly QA Section	Included in monthly progress reports scheduled in accordance with PWS Sections G&H on reporting and deliverables. Email on standardized naming convention and version control for all deliverables with 10 working days following receipt of task order.
Subtask 1.2: Communication	Meeting agendas e-mailed to the TOCOR, EPA Technical Lead, and /or any additional personnel as determined by the EPA Technical Lead at least two (2) days prior to the meeting. A list of action items specific to each meeting participant shall be provided along with the meeting agenda. Draft e-mail draft meeting minutes, to include any updates to the action items, to the TOCOR no later than three (3) calendar days following any meeting. Amend and finalize meeting minutes within five (5) calendar days following receipt of comments from the TOCOR and/or EPA Technical Lead.
Subtask 1.3 QAPP	Draft QAPP shall be provided to TOCOR 30 days after award. Final QAPP shall be submitted to EPA within 10 days of receipt of comments. QAPP finalized NLT 3 weeks prior to start of any survey activities.
Task 2 Deliverables	
2.2a Physical sediment sampling	See Deliverables Task 3.1
2.2b Chemical sediment sampling	
2.2c Infauna sampling	
2.2d Benthic trawl	

2.3e Benthic video sled	
Task 3 Data Analysis	
3.1 Survey Report	Draft report due 30 days after survey completion. Final report due 30 days from receipt of EPA comments.
3.2 Physical and Chemical Laboratory Data	Draft report due 60 days after survey completion. Final report due 30 days from receipt of EPA comments.
3.3 Benthic Infauna report	Raw infauna data due by December 10, OR draft report (including raw data) due 4 months after survey completion, whichever is earlier in the calendar year. Final report due 30 days from receipt of EPA comments.
3.4 Benthic trawls	Raw trawl data due by December 10, OR draft report (including raw data) due 4 months after survey completion. Final report due 30 days from receipt of EPA comments.
3.5 Video sled	Draft report due 4 months after survey completion. Final report due 30 days from receipt of EPA comments.
3.6 Data QA/QC	Data files in appropriate specified EPA electronic (digital) format due with draft reports.
Task 4 Data Management	
4.0 - All data entered into EPA STORET via WQX and WA EIM	<p>The following is due 30 days after all data received from sub-contractors:</p> <ul style="list-style-type: none"> • Appropriate data backup media • Configuration of appropriate formats and features for upload into EPA-supported databases as appropriate (i.e., STORET WQX- http://www.epa.gov/storet/wqx/; see note below). • All data into Water Quality EXchange (WQX), in addition to submitting it to the EPA TOCOR. • Data can also be organized and submitted using WQX Web which is a MS Excel based tool located at: http://www.epa.gov/storet/wqx/wqxweb_downloads.html. • An Electronic Data Deliverable (EDD) of the sediment quality data suitable for entry into the Washington Department of Ecology's Environmental Information Management (EIM) Database. • An electronic version of the final report that includes QC data for conventional testing.

Quality Assurance Surveillance Plan (QASP).

The Contractor shall participate in meetings and conference calls arranged by the TOCOR.

The Contractor shall, when requested by the TOCOR, provide supporting documentation when EPA is reviewing draft deliverables to facilitate EPA review and approval of the Contractor's work.

Documentation will include the electronic files and detailed, written explanation of all steps and

decisions. The Contractor is expected to comply with this request when it is received from the TOCOR regardless of whether such a request is described in the individual tasks of this PWS. The Contractor is expected to furnish this information in such manner that no proprietary software will be needed for EPA to read, interpret, replicate or model any work product of this agreement, unless otherwise noted in this PWS or by written permission of the TOCOR. The objective is that anyone with the appropriate skill level can use the information produced under this Task Order to check or duplicate the Contractor's work for replication and/or verification. With this understanding of how this Task Order's data will be used, any elements essential to successfully replicating analysis shall be provided to EPA in a commonly-used format.

The Contractor shall provide both scientific/technical and editorial review as defined in section 2.6 of the Prime Contract Performance Work Statement on any Task Order **draft** product before submission to the TOCOR for review. This process does not need to be performed by an independent peer reviewer. It is expected that all editorial review comments will be addressed before deliverables are furnished to the TOCOR for review (in the case of draft deliverables) or acceptance (in the case of final deliverables); and that questions raised by scientific/ technical review will be either addressed or discussed with the TOCOR prior to the Contractor furnishing draft deliverables.

EPA anticipates that the contractor's work will be judged "satisfactory" according to the QASP if TOCOR edits to deliverables are no more than ten percent (10%) of the content of any draft deliverable, or less than two percent (2%) of any final deliverable. In addition, EPA anticipates that the Contractor's work will be judged "satisfactory" according to the QASP if less than ten percent (10%) of the pages of written final deliverables contain TOCOR edits for such things as grammar, punctuation and format. The TOCOR can upon request furnish a copy of the EPA correspondence manual for the Contractor's use.

Upon receipt of written technical direction from the TOCOR, the contractor shall furnish:

- All deliverables (draft and final) to EPA shall be furnished in an electronic version and in an electronic format that EPA can support (see TSAWP Contract PWS Section 4.0 Deliverables).
- All final deliverables to EPA shall include one (1) electronic copy and two (2) paper copies. All final deliverables shall be prepared according to EPA publication guidelines and shall be compliant with Section 508 of the **Americans with Disabilities Act**.

All submittals to EPA shall be formatted as described below.

Electronic submissions shall be made in the following manner: electronic Microsoft Word© for any written reports, summaries or analysis documents, Microsoft Excel© format for any and all spreadsheets, raw data, coding and modeling work (including all model runs with essential data to replicate model runs), and Microsoft Access© format for any and all databases or for other data as is approved by the EPA TOCOR in writing. Final electronic submissions shall be on Compact Disk (CD) or Digital Versatile Disc (DVD). The contractor may utilize an FTP, but only if the EPA TOCOR gives written permission. Every electronic document and all of the sections, text, graphs, charts or figures shall be unlocked, open and editable so that EPA may make further changes.

Unless specified otherwise by the TOCOR, final paper submissions shall be made in the following manner: two (2) separate and identical copies of all deliverables must be submitted; each separate copy includes all the products due at that date (i.e., Task 1, 2, etc.), and must be submitted in one (1) or more

bound volumes, as appropriate, with a title page, an executive summary describing the purpose and content, and an index, located inside the front cover of each bound volume, and electronic copies enclosed in envelopes (or other suitable means) bound in the respective volume. Although PDF versions of materials may be additionally submitted per the contractor's prerogative, neither electronic nor paper PDF versions will be acceptable as any final work product.

Appropriate electronic format that is supported by EPA and printing of all GIS data layers, maps, photos, bench sheets and other written material not easily printed or saved in the above formats will be discussed and a format agreed upon with the EPA TOCOR prior to submittal by the contractor.

When the Task Order reaches 30 calendar days prior to the end of the Period of Performance in a given period, the Contractor shall make a determination that the deliverables, milestones, benchmarks, and any outstanding technical direction from the TOCOR, will be satisfactorily completed in the form requested in the PWS by the end of the Period of Performance and for the remaining funding that is available.

If the Contractor determines one or more of the above-referenced items will not be able to be completed in the requested form within the period of performance and with the available funding, the Contractor shall notify the TOCOR and the CO immediately. Within 5 business days of said notification, the TOCOR in coordination with the CO will provide technical direction concerning use of the remaining funding to prepare and furnish to the TOCOR all interim draft deliverables, interim work products, and any working files in an electronic format which is supported by EPA, for eventual continuation of the project after the end date of the Task Order.

SECTION 6.0 Optional Task A – Vessel Lease for Umpqua and Siuslaw Survey

After obtaining approval from the TOCOR and after receipt of a modification issued by the Contracting Officer to exercise and fund the line item, the Contractor shall schedule and provide for a vessel or vessels capable of collecting the appropriate samples at the selected sites in a cost effective manner for an agreed upon number of consecutive days, during the timeframe of June to early October, as described in the QAPP developed under Task 1 to support the survey objectives of this Performance Work Statement. The vessel(s) shall meet the following minimum requirements:

Note: This reservation maybe used or cancelled due to limitation of EPA funds, changed in EPA program direction and/or written direction by EPA's Contracting Officer.

- a) Vessel must be equipped to operate on an appropriate schedule (12 or 24 hour operations) in typical sea state conditions offshore of Oregon.
- b) Schedule should include all appropriate vessel transit days to/from the point of mobilization/de-mobilization, ½ to one day to load/unload equipment and supplies, sufficient days to transit to/from/between sampling sites, and a sufficient number of days to complete field work objectives, including two bad weather days.
- c) Mobilization/de-mobilization will be out of ports approved by the TOCOR.
- d) Stable platform, preferably at least 60 feet in length, with A-frame capable to deploy survey equipment, (Gray O'hare Box core sampler, 12' Otter trawl, Video sled) which may weigh as much as 1,000 pounds.
- e) Berthing capacity, if appropriate for proposed survey plan by Contactor, for an appropriate number of scientific crew, including 2 EPA personnel (2 EPA Chief Scientists) and 1 USACE personnel (field staff). including field technicians.
- f) Electronic positioning equipment with minimum accuracy of +/-3 meters.
- g) Sufficient covered space to process sediment samples.
- h) Sufficient freezer to accommodate ice for coolers and sample storage.
- i) Survey work will involve all of the equipment described in Section 1 and 2 above, including: Box core, otter trawl, towed video sled, in-situ water sampling probe, and bridge-linked GPS video screen in science lab.
- j) The contractor shall provide a survey vessel of sufficient size and deck space to accomplish Task 2 (sediment sampling, trawling, video sled, water quality sampling). The equipment and supplies shall be of sufficient size and deck space to assemble, deploy, and process samples for the Government-furnished Gray O'Hara Box Corer Sampler¹ and Benthic Video Sled. Physical characteristics of the Box Corer Sampler and Benthic Video Sled are in Attachment E.
- k) Survey work may be conducted at the four disposal sites and one or more reference sites off-shore of Umpqua and Siuslaw rivers of Oregon as described in section 1.0 above (Project Description).
- l) Vessel attributes needed to operate and collect appropriate images from the video sled: The survey vessel will need to have the ability to tow the video sled at speeds between 1.0 – 2 knots. The vessel must have the ability to navigate at those speeds and employ a bow thruster if need be. The video sled requires this vessel speed for proper video bottom contact. A viewing station

¹ 0.1 m² modified Gray-O'Hara box. Weight is approximately 300 lbs. Corer needs approximately 5' of clearance to be lifted over the stern / bow / gunwale, with a davit or A-frame with a winch.

in the science/dry lab is preferred. There must be adequate winch line for at least a 45 degree angle of tow with bottom contact. These attributes will also benefit the otter trawl.

- m) Vessel must meet checklist items in Chapter 14 EPA Vessel Safety Manual, "Chartering Non-EPA owned vessels review checklist". <https://www.epa.gov/sites/production/files/2016-03/documents/epa-vessel-safety-manual-2012.pdf>

SECTION 7.0 Optional Task B – Sidescan sonar for Umpqua North and South Disposal Sites

After obtaining approval from the TOCOR and after receipt of a modification issued by the Contracting Officer to exercise and fund the line item, the contractor shall do the following:

Task OEB1. Conduct a sidescan sonar survey of the Umpqua North and South ODMD sites and in reference areas for a total area of 3,400 acres to map important habitats (including sand dollar beds) which are located within and near the Umpqua North ODMDs and South ODMDs prior to conducting sediment sampling, trawling, and video sled transects. The results of the sidescan sonar survey will be used to determine sediment grab sampling stations, trawls, and video sled transects. The side scan sonar survey would be completed on a separate voyage than Task 2 to allow for sufficient time to review the data and adjust the sediment grab sampling stations and transects for the otter trawl and video sled to avoid these sensitive habitats. Contractor shall provide and operate the equipment to conduct this survey.

Task OEB1. Deliverable:

- Sidescan sonar survey

Task OEB2. Sidescan sonar data

The Contractor shall analyze and interpret the sidescan sonar data from the survey. The Contractor shall provide raw data in appropriate EPA-compatible electronic (digital) format.

Subtask Task 3.2 Deliverable:

- Two (2) copies of a DVD containing the data and ESRI project of the geodatabase.

Task OEB3. Sidescan sonar maps

The contractor shall provide maps of the area surveyed which show the ocean disposal sites, surrounding areas, and the interpretation of seafloor features including sensitive habitats (including sand dollar beds), materials such as logs, crab pots, hard substrate.

Task 3.3 Deliverables:

- Map(s) of side scan sonar interpretation at the North, South, and reference areas.

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

1

5

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER 11/28/2018		2. CONTRACT NO. (If any) EP-C-17-044		6. SHIP TO: a. NAME OF CONSIGNEE Region 5	
3. ORDER NO. 68HERC19F0035		4. REQUISITION/REFERENCE NO. PR-R5-18-00467			
5. ISSUING OFFICE (Address correspondence to) CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001				b. STREET ADDRESS US Environmental Protection Agency 77 West Jackson Boulevard	
				c. CITY Chicago	e. ZIP CODE 60604-3507
7. TO: (b)(4)				f. SHIP VIA	
a. NAME OF CONTRACTOR CADMUS GROUP, INC., THE				8. TYPE OF ORDER	
b. COMPANY NAME				<input type="checkbox"/> a. PURCHASE <input checked="" type="checkbox"/> b. DELIVERY REFERENCE YOUR: Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.	
c. STREET ADDRESS 100 5TH AVENUE SUITE 100				Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
d. CITY WALTHAM		e. STATE MA	f. ZIP CODE 02451		
9. ACCOUNTING AND APPROPRIATION DATA See Schedule				10. REQUISITIONING OFFICE Region 5	

11. BUSINESS CLASSIFICATION (Check appropriate box(es))				12. F.O.B. POINT	
<input type="checkbox"/> a. SMALL <input checked="" type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. SERVICE-DISABLED VETERAN-OWNED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM <input type="checkbox"/> h. EDWOSB					
13. PLACE OF		14. GOVERNMENT B/L NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) 1 Days After Award	
a. INSPECTION Destination	b. ACCEPTANCE Destination			16. DISCOUNT TERMS	

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: 101163731 AWARD NUMBER: EP-C-17-044 TOCOR: Paul Proto Max Expire Date: 11/27/2020 Invoice Approver: Paul Proto Alt Invoice App: Donna Keclik Continued ...					

SEE BILLING INSTRUCTIONS ON REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOTAL (Cont. pages)
	21. MAIL INVOICE TO:						
	a. NAME RTP Finance Center						\$83,349.96
	b. STREET ADDRESS (or P.O. Box) US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts						\$83,349.96
c. CITY Durham		d. STATE NC	e. ZIP CODE 27711				17(i) GRAND TOTAL

22. UNITED STATES OF AMERICA BY (Signature)

11/28/2018

Angela Lower

ELECTRONIC SIGNATURE

23. NAME (Typed)
Angela Lower
TITLE: CONTRACTING/ORDERING OFFICER

ORDER FOR SUPPLIES OR SERVICES

PAGE NO

SCHEDULE - CONTINUATION

2

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER		CONTRACT NO.			ORDER NO.	
11/28/2018		EP-C-17-044			68HERC19F0035	
ITEM NO.	SUPPLIES/SERVICES	QUANTITY ORDERED	UNIT	UNIT PRICE	AMOUNT	QUANTITY ACCEPTED
(a)	(b)	(c)	(d)	(e)	(f)	(g)
0001	Admin Office: CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001 Period of Performance: 11/28/2018 to 11/27/2020 Using the SWAT model help in the development of TMDLs for subwatersheds in the Northeastern Lakeshore area for nutrient (total Phosphorus (TP)) and sediment (total suspended solids, (TSS)) impairments for inland lakes. Task 1 - Kick Off Phone Call Accounting Info: 18-19-B-87FL-000BD4-2505-1987LE9002-00 1 BFY: 18 EFY: 19 Fund: B Budget Org: 87FL Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 1987LE9002-001 Funding Flag: Complete Funded: \$905.60				905.60	
0002	Using the SWAT model help in the development of TMDLs for subwatersheds in the Northeastern Lakeshore area for nutrient (total Phosphorus (TP)) and sediment (total suspended solids, (TSS)) impairments for inland lakes. Task 2 - Monthly Work Group Conference Calls Accounting Info: 18-19-B-87FL-000BD4-2505-1987LE9002-00 1 BFY: 18 EFY: 19 Fund: B Budget Org: 87FL Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 1987LE9002-001 Funding Flag: Complete Funded: \$7,116.30				7,116.30	
0003	Using the SWAT model help in the development of TMDLs for subwatersheds in the Northeastern Lakeshore area for Continued ...				5,945.92	
TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))					\$13,967.82	

ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

PAGE NO
3

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER 11/28/2018	CONTRACT NO. EP-C-17-044	ORDER NO. 68HERC19F0035
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ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
0004	<p>nutrient (total Phosphorus (TP)) and sediment (total suspended solids, (TSS)) impairments for inland lakes. Task 3 - Monthly Progress Reports</p> <p>Accounting Info: 18-19-B-87FL-000BD4-2505-1987LE9002-00 1 BFY: 18 EFY: 19 Fund: B Budget Org: 87FL Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 1987LE9002-001 Funding Flag: Complete Funded: \$5,945.92</p> <p>Using the SWAT model help in the development of TMDLs for subwatersheds in the Northeastern Lakeshore area for nutrient (total Phosphorus (TP)) and sediment (total suspended solids, (TSS)) impairments for inland lakes. Task 4 - Quality Assurance Project Plan (QAPP) Development</p> <p>Accounting Info: 18-19-B-87FL-000BD4-2505-1987LE9002-00 1 BFY: 18 EFY: 19 Fund: B Budget Org: 87FL Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 1987LE9002-001 Funding Flag: Complete Funded: \$693.18</p> <p>Accounting Info: 19-20-B-87FN-000BD4-2505-1987LE9002-00 2 BFY: 19 EFY: 20 Fund: B Budget Org: 87FN Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 1987LE9002-002 Funding Flag: Complete Funded: \$6,475.90</p>				7,169.08	
0005	<p>Using the SWAT model help in the development of TMDLs for subwatersheds in the Northeastern Lakeshore area for nutrient (total Phosphorus (TP)) and sediment (total suspended solids, (TSS)) impairments for inland lakes. Continued ...</p>				45,034.94	

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$52,204.02

ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

PAGE NO
4

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER 11/28/2018	CONTRACT NO. EP-C-17-044	ORDER NO. 68HERC19F0035
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ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
0006	<p>Task 5 - SWAT Data Analysis and Model Preparation</p> <p>Accounting Info: 19-20-B-87FN-000BD4-2505-1987LE9002-00 2 BFY: 19 EFY: 20 Fund: B Budget Org: 87FN Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 1987LE9002-002 Funding Flag: Complete Funded: \$45,034.94</p> <p>Using the SWAT model help in the development of TMDLs for subwatersheds in the Northeastern Lakeshore area for nutrient (total Phosphorus (TP)) and sediment (total suspended solids, (TSS)) impairments for inland lakes. Task 6 - Modeling Final Report</p> <p>Accounting Info: 19-20-B-87FN-000BD4-2505-1987LE9002-00 2 BFY: 19 EFY: 20 Fund: B Budget Org: 87FN Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 1987LE9002-002 Funding Flag: Complete Funded: \$17,178.12</p>				17,178.12	

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$17,178.12

EPA-F-12-101 PERIOD OF PERFORMANCE

The period of performance of this contract shall be from **AWARD** through **11/27/2020** inclusive of all required reports.

EPA-G-42-101 CONTRACT ADMINISTRATION REPRESENTATIVES

Task Order Contracting Officers Representatives (TOCORs) for this contract are as follows:

Paul Proto; proto.paul@epa.gov; (312) 353-8657

Donna Keclik; keclik.donna@epa.gov; (312) 886-6766

Contracting Officials responsible for administering this contract are as follows:

Angela Lower; lower.angela@epa.gov; 513-487-2036

Lisa Mitchell-Flinn; mitchell-flinn.lisa@epa.gov; 513-487-2852

PERFORMANCE WORK STATEMENT (PWS)

A. TITLE: Soil and Water Assessment Tool (SWAT) Modeling for the Northeast Lakeshore TMDL

B. PERIOD OF PERFORMANCE: Task Order Award through September 30, 2020.

C. BACKGROUND

U.S. EPA and the Wisconsin Department of Natural Resources (WDNR) have identified nearshore subwatersheds which drain to Lake Michigan in Northeastern Wisconsin as a priority area for restoration efforts. EPA's efforts under the Great Lakes Restoration Initiative (GLRI) are aimed at protecting and restoring the Great Lakes ecosystem, especially those actions which reduce runoff that contributes to algal blooms and which restore habitat to protect native species. WDNR agrees with these goals and has begun initial water quality monitoring efforts in ten subwatersheds in northeastern Wisconsin which span eight counties; Ozaukee, Sheboygan, Fond du Lac, Manitowoc, Calumet, Kewaunee, Brown and Door. The spatial extent of the subwatersheds addressed by WDNR efforts is found in Figure 1 at the end of this Performance Work Statement (PWS).

In addition to ongoing water quality monitoring, WDNR has completed Clean Water Act (CWA) 303(d) assessments in these ten subwatersheds (i.e., the watersheds of Wisconsin's Northeast Lakeshore Total Maximum Daily Load (TMDL)) and identified various surface waters which were not meeting state water quality standards (WQS). Section 303(d) of the CWA and the EPA's Water Quality Planning and Management Regulations (Title 40 of the Code of Federal Regulations [CFR], Part 130) require states to develop Total Maximum Daily Loads for water bodies that are not meeting water quality standards. The TMDL process establishes the allowable loadings of pollutants for a water body based on the relationship between pollution sources and in-stream water quality conditions. TMDLs provide a basis for determining the pollutant reductions necessary from both point and nonpoint sources to restore and maintain the quality of water resources.

WDNR is in the early stages of its state led process for developing TMDLs for subwatersheds in the Northeastern Lakeshore area for nutrient (total Phosphorus (TP)) and sediment (total suspended solids, (TSS)) impairments. These impaired segments include waters which drain directly to Lake Michigan and headwater segments (See Figure 2 of this PWS which highlights TP impaired segments in the Northeast Lakeshore subwatersheds). WDNR has targeted select TP and sediment impaired waters in ten subwatersheds in Northeastern Wisconsin for its Northeastern Lakeshore TMDL project (i.e., NE Lakeshore TMDL).

Nearshore waters in Lake Michigan and the tributaries which drain to Lake Michigan are impacted by sediment borne nutrient loads from terrestrial sources. Phosphorus inputs have been identified as primary nutrient contributors to decreased water quality in these waters. An overabundance of nutrients can trigger excessive algal growth (or eutrophication) which results in reduced sunlight, loss of aquatic habitat, degraded biological communities and a decrease in dissolved oxygen (DO) in the water column. Excess nutrients may come from a wide range of point and nonpoint sources including urban stormwater runoff, livestock operations, stormwater runoff from agricultural land (e.g., row crop land), atmospheric deposition, leaking septic systems and soil erosion.

Degradations in aquatic habitats or water quality (e.g., low DO) can negatively impact aquatic life use. Increased turbidity, brought on by elevated levels of nutrients or sediments within the water column, can reduce DO in the water column, and cause large shifts in DO and pH throughout the day. Shifting chemical conditions within the water column may stress aquatic biota (fish and macroinvertebrate species). In some instances, degradations in aquatic habitats or water quality have reduced fish populations or altered fish communities from those communities supporting sport fish species to communities which support more tolerant rough fish species.

Water quality in northeastern Wisconsin is also impacted by excess sediment in surface waters. Excess siltation and flow alterations of natural stream environments may impact aquatic life by disrupting natural habitats for fish and macroinvertebrate species. Excess sediment can fill stream pools, embed substrates, and reduce connectivity between different stream habitats. The result is a decline in habitat types that in healthy streams support diverse fish and macroinvertebrate communities. Excess sediment can also reduce spawning and rearing habitats for certain fish species, can clog the gills of fish and negatively impact fish health.

Flow alterations in areas of northeastern Wisconsin due to drainage improvements on or near agricultural lands, have in some instances resulted in increased peak flows. Higher peak flows in stream environments, which typically occur during storm events, can carry increased sediment loads to streams and erode streambanks. Deposited fine sediments transported during storm events may damage substrates leading to habitat loss. Similar to the nutrient effects discussed above, this may result in reduced fish populations or altered fish communities from those communities supporting sport fish species to communities which support rough fish species.

D. SCOPE OF WORK

The NE Lakeshore TMDLs address areas which drain to Lake Michigan in eight counties in northeastern Wisconsin (Figure 1 of this PWS). Northeastern Wisconsin, like many nearshore areas to the Great Lakes, faces impaired water quality conditions, including low DO conditions in surface waters, algal blooms, degraded habitats and impacted recreational use availability. Surface waters and the nearshore areas of Lake Michigan in northeastern Wisconsin are an important recreational, industrial, and natural resource to the State of Wisconsin therefore, the State and local stakeholders are motivated to improve water quality and restore usability of surface waters in these areas.

WDNR has elected to develop TMDLs for select waters in northeastern Wisconsin. The TMDL development process characterizes water quality, describes the problem and sources which are exacerbating the degraded water quality conditions, estimates pollutant loads from the various point and nonpoint sources, define(s) the allowable point and nonpoint source loads necessary to support beneficial uses and attain WQS, allocates pollutant loads among different sources and describes implementation efforts needed to improve water quality on the local level.

Prior to allocating pollutant loadings to point and nonpoint sources one must quantify both the point and nonpoint source contributions to the watershed. Point source allocation information is typically gathered from consulting with individual facilities and or utilizing state and federal point source reporting resources. Point sources are characterized within the TMDL equation as wasteload allocations (WLAs). Nonpoint source loading (i.e., load allocations (LA) within the TMDL equation) is sometimes estimated with the assistance of hydrologic modeling efforts. WDNR has used the Soil and Water Assessment Tool (SWAT) model in previous TMDL projects to estimate pollutant loads entering water bodies originating from various land uses (e.g., forest, wetland, pasture ('edge of field'

estimates), cropland (edge of field estimates), urban etc.) which in the context of a TMDL are attributed to nonpoint source contributions.

The purpose of this Task Order (TO) is to assist WDNR in the development of a SWAT model(s) for the subwatersheds addressed in the NE Lakeshore TMDL (see Figure 1 of this PWS). The SWAT modeling efforts will characterize phosphorus and sediment inputs to surface waters in northeastern Wisconsin for purposes of TMDL development. The Contractor shall be expected to provide to WDNR the pollutant loading SWAT modeling results and nonpoint source pollutant loading analysis as part of its overall responsibilities under this TO.

WDNR will use the results of the Contractor supported SWAT modeling efforts to complete additional TMDL developmental activities in the NE Lakeshore area outside of this TO. This TO is solely to assist WDNR to develop, calibrate, validate and run a SWAT model(s). Upon completion of the technical SWAT modeling work, the Contractor shall write a final SWAT Modeling Report which will document the model development, nonpoint source pollutant loading analysis, and the SWAT calibration and validation processes which were performed in this TO. WDNR anticipates that this final SWAT Modeling Report will serve as an Appendix for the final NE Lakeshore TMDL Report to be developed at some time in the future by WDNR. Additionally, WDNR expects that the SWAT modeling efforts toward characterizing nonpoint sources completed in this TO will be used by stakeholders to inform watershed based planning efforts (i.e., 9-Element Watershed Management Plans), specifically to inform reduction goals for nonpoint sources in the NE Lakeshore area.

It is expected that all work and requested deliverables will be completed within the period of performance which starts on the date in which the TO is awarded and concludes on September 30, 2020.

TASK 1: KICKOFF PHONE CALL

The Contractor shall arrange a kick-off call (approx. 60-90 minutes) with EPA and WDNR to review overall goals of the project and details regarding implementation of the TO. The kickoff call shall be scheduled within five business days of the TO award or at an alternate date as agreed upon by the EPA Task Order Contract Officer Representative (TOCOR), EPA Technical Lead, the WDNR project manager and the Contractor. The call shall be scheduled at a mutually agreed upon time based on the availability of the EPA TOCOR, EPA Technical Lead, the WDNR project manager and the Contractor. During the kickoff phone call EPA, WDNR and the Contractor will discuss: roles and responsibilities for completing each phase of the TO, tasks within the TO, the goals/deliverables of the TO, quality assurance procedures of the TO, existing water quality data, and review the schedule of benchmarks, deliverables and milestones described in the PWS.

TASK 2: MONTHLY WORK GROUP CONFERENCE CALLS

The Contractor shall plan to participate in regular phone consultation with EPA and WDNR not fewer than once every month for the duration of the TO. The Contractor should anticipate having 1-2 calls per month lasting 1-2 hours per call. These monthly work group conference calls shall be scheduled at a mutually agreed upon day and time by EPA, WDNR and the Contractor. The main purpose of these monthly calls will be for all parties to have a designated time once a month to update each other on project progress. Additional conference calls shall be scheduled as needed. The Contractor shall be the note taker for these phone consultations and will provide meeting notes for each monthly conference call in electronic mail (i.e., E-mail) format to project participants at EPA and WDNR.

The Contractor may need to communicate with stakeholders and other entities of local, state and federal government to collect the necessary data and information to complete the tasks in this PWS. For communications that occur outside of the presence of the EPA TOCOR, the Contractor shall clearly identify to the EPA TOCOR, either through an electronic mail or as a resource in a deliverable, when and with whom such technical communications were held. Should any controversial or argumentative issue arise during such communications, the EPA TOCOR shall be notified at the earliest opportunity, but no later than 5 days after the issue has been raised. The Contractor at no time shall take any technical direction from anyone other than the EPA TOCOR.

TASK 3: MONTHLY PROGRESS REPORTS

The Contractor shall write and submit monthly progress reports to the EPA TOCOR. Progress reports shall describe completed work during the invoice period and should link to charges described in invoice documentation. The monthly progress reports shall provide the following information:

- Contract and TO number, reporting period, and contact information: This information serves as heading to the monthly progress report;
- Progress made during the report period: Activities completed toward completion of deliverables, including those regarding quality assurance;
- Deliverables: Schedule showing completed and upcoming deliverables;
- Projected activity for the next reporting period: Activities to be completed toward completion of deliverables; and
- Project issues: Impediments encountered, and budget/financial status (e.g., amount billed to date per task and amount remaining per task).

Failure to submit monthly progress reports with the information required will result in the suspension of the invoice until such supporting documentation is provided. The EPA TOCOR may also initiate verbal communications with the Contractor on an as needed basis to determine project status. The Contractor shall provide the EPA TOCOR and the Contracting Officer (CO)/Contracting Specialist (CS) with monthly progress reports via e-mail until the completion of the project. The EPA TOCOR's e-mail address is: proto.paul@epa.gov

TASK 4: QUALITY ASSURANCE PROJECT PLAN (QAPP) DEVELOPMENT

Development of the modeling will rely on existing water quality data (i.e., WDNR is currently collecting water quality data in the watershed) and studies. The Contractor shall not collect new water quality samples under this TO. The Contractor shall develop a Quality Assurance Project Plan (QAPP) which shall address how the Contractor shall ensure quality in their evaluation of secondary data sources necessary to develop the modeling, such as evaluations of existing water quality and flow data, pollutant loading model results, and analyses of pollutant sources. The QAPP shall identify specific quality aspects/features involved in the model development/application that will be used to complete this TO.

EPA policy requires that an approved QAPP be in place before any work begins that involves the collection/gathering, generation, evaluation, analysis or use of environmental data. The work to be performed by the Contractor under this TO involves such activities; therefore, in order to comply with this requirement:

- Within 45 days after the kickoff call the Contractor shall prepare and submit, for EPA and WDNR review, a draft QAPP documenting how quality assurance (QA) and quality control (QC) shall be applied to the collection/gathering, generation, evaluation, analysis and use of environmental data.

- EPA and WDNR will review the Contractor's draft QAPP within 10 days upon receipt of the draft QAPP, and provide the Contractor with written comments or written approval.
- The Contractor shall submit a revised draft QAPP version(s) within 15 days of receipt of the written comments on the draft QAPP, unless otherwise instructed by the EPA TOCOR.
- EPA and WDNR will review the Contractor's revised draft QAPP version(s) within 10 days upon receipt of the revised draft QAPP, and provide the Contractor with written approval or written comments.
- **The QAPP document will only be considered to be the final QAPP deliverable when no further modification of text, tables or figures are needed, and all parties have signed/approved the document.**
- The Contractor shall write the QAPP using the active voice. The QAPP shall provide enough detail to clearly describe objectives of the project supported by the TO; the type of data to be gathered, generated, or used under this TO to support the project objectives; the quality objectives needed to ensure that these shall support the project objectives; and the quality assurance and quality control activities to be performed to ensure that any results obtained are documented and are of the type, quality, transparency, and reproducibility needed.
- The QAPP must be consistent with the guidance documents, EPA Requirements for Quality Assurance Project Plans: EPA QAR-5, and "*Guidance for Quality Assurance Project Plans for Modeling (QA/G-5M)*". (<http://www.epa.gov/quality/qs-docs/r5-final.pdf>).
- **Under no circumstances shall work that involves the collection/gathering, generation, evaluation, analysis, or use of environmental data be performed until the Contractor receives written notification from the EPA TOCOR that EPA has approved the Contractor's QAPP.**
- Any non-sampling/non-analytical work that involves the generation, collection/gathering, evaluation, analysis, or use of environmental data that is initiated prior to EPA approval of the Contractor's QAPP shall be performed in accordance with the approved QAPP. EPA may request the Contractor to furnish written documentation from the Contractor showing that the Contractor has complied with this requirement.
- All QA documentation, including the QAPP, prepared under this TO, shall be considered non-proprietary, and shall be made available to the public upon request.

Additional QA Documentation Required

In addition to the QAPP requirements described above, all major deliverables (e.g., Technical Support Documents, Study Reports, Study Plans, etc.) produced by the Contractor under this TO must include a discussion of the QA/QC activities that were or shall be performed to support the deliverable.

The Contractor shall immediately notify the EPA TOCOR of any QA problems encountered that may impact the performance of this Task Order, with recommendations for corrective action.

The Contractor also shall provide EPA with monthly reports of QA-related activities performed during implementation of this TO. These monthly QA reports shall identify QA activities performed to support implementation of this task order, problems encountered, deviations from the QAPP, and corrective actions taken. The Contractor shall include this as a part of the contract-required monthly financial/technical progress report.

Deliverables and schedule for QA Tasks:

- The Contractor shall prepare and submit for EPA review a preliminary draft QAPP documenting how QA/QC shall be applied to the generation, collection, evaluation, analysis and use of environmental data.

- The Contractor shall provide a revised draft QAPP, and incorporate EPA comments into revisions.
- The Contractor shall notify the EPA TOCOR at any time during the task order if changes to the QAPPs are warranted (e.g., due to organizational changes, revised technical approaches).
- If, during the Period of Performance of this TO, the EPA TOCOR provides technical direction that revisions to the QAPP are determined to be necessary, the Contractor shall submit a revised QAPP, including the revision summary, within 30 business days after receiving written technical direction to do so. When preparing this “draft” revised version of the QAPP, the Contractor shall ensure that it is written in an active voice and shall include a version history page that summarizes changes made. The Contractor also shall provide EPA with copies of any modified SOPs or checklists. EPA will review the “draft” revised QAPP and provide the Contractor with written approval or comments. The Contractor shall provide a final QAPP that responds to EPA’s written comments within 30 business days of receipt of EPA’s comments on the draft QAPP. No work under the revised QAPP shall be conducted until the TOCOR advises in writing that EPA has accepted the revised QAPP

Reporting Requirements:

The Contractor shall include a QA/QC section within each major deliverable (as specified above). The Contractor shall provide monthly reports of QA activities performed during implementation of this task order (as specified above).

There may be several iterations of the final QAPP document that EPA considers to be ‘pre-final’. EPA defines the final QAPP deliverable as the draft that requires no further modification of text, tables or figures. The Contractor shall furnish all deliverables to the EPA TOCOR in an electronic format that EPA and WDNR can support (MS Word). The final QAPP shall be completed within 30 calendar days after the submittal of the revised draft QAPP to EPA and WDNR.

DELIVERABLES FOR TASK 4:

4.1: Draft QAPP

4.2: Final QAPP

TASK 5: SWAT – DATA ANALYSIS AND MODEL PREPARATION

SWAT Model

The SWAT model is a public domain model jointly developed by the United States Department of Agriculture Agricultural Research Service (USDA-ARS) and Texas A&M University which is designed to simulate the impact of land use, land management practices and climate change on surface and groundwater quality and quantity.¹ SWAT is a process-based model which simulates key hydrologic and water quality processes (e.g., surface water runoff, evapotranspiration, erosion, groundwater discharge etc.). The SWAT model is spatially distributed which allows parameters which affect hydrologic flow and water chemistry/water quality the ability to vary throughout a modeled watershed.

SWAT has been utilized to assess nonpoint source inputs for TMDL development in previously completed WDNR TMDL efforts.² Some of the advantages of employing SWAT modeling to

¹ SWAT webpage, <https://swat.tamu.edu/>

² Examples: Upper Fox-Wolf Basins TMDL (2018), Lower Fox River Basin and Lower Green Bay TMDL (2012) <https://dnr.wi.gov/topic/TMDLs/documents/lowerfox/LowerFoxRiverTMDLReport2012.pdf>

characterize nonpoint source watershed inputs include its ability to simulate environmental variables (e.g., streamflow, pollutant concentrations) at varying levels of spatial and temporal resolutions. SWAT is commonly used to model hydrologic and hydrochemical behaviors in agricultural watersheds, with variable agricultural practices in the upper Midwest. The SWAT model for this TO is anticipated to incorporate information on land cover, soils, slope, and land management practices in the watershed to provide daily predictions of pollutant loads (e.g., phosphorus and sediment loads) from nonpoint sources and estimate water volumes/average streamflow to guide TMDL analysis.

Other SWAT modeling efforts in Wisconsin

WDNR is currently developing a TMDL which employ SWAT modeling to characterize nonpoint source contributions (e.g., the Upper Fox-Wolf Basins TMDL³). WDNR anticipates that the efforts to develop the NE Lakeshore TMDLs may mimic the TMDL development efforts of the Upper Fox-Wolf Basins (UFWB) TMDLs, including glean relevant information from the UFWB SWAT efforts to help inform the SWAT model set up for the NE Lakeshore TMDLs. The UFWB is the watershed immediately west of the central part of the NE Lakeshore watershed and EPA and WDNR anticipate that lessons learned from the UFWB SWAT model could be useful to establish some of the NE Lakeshore SWAT modeling efforts. EPA and WDNR will share relevant UFWB SWAT modeling and report files with the Contractor prior to the start of NE Lakeshore SWAT modeling efforts.

Water quality and agricultural data

EPA and WDNR will facilitate in the transfer of relevant federal and state water quality data (e.g., state ambient water quality measurements) and local agricultural data to the Contractor prior to the start of SWAT modeling efforts in the NE Lakeshore area. The Contractor will not be collecting any of the WQ or AG data. The state will be transferring the data to the Contractor. Typically, a data set of this type would include spreadsheets of WQ data, NPDES facility information, GIS mapping data (shape files and other supporting meta-data to inform GIS analyses), watershed specific data (i.e., land use information, population information, etc.), animal count information (AG data).

TASK 5A: SWAT WATERSHED DELINEATION

The SWAT model typically represents a basin as a collection of subwatersheds and Hydrologic Response Units (HRUs). Each HRU is a land area with a unique land use-soil-slope combination. The Contractor shall complete a subwatershed delineation exercise which subdivides the subwatersheds in Figure 1 of the PWS into smaller drainage units (e.g., HUC-12 or smaller scale). This delineation exercise should reflect actual drainage patterns and accurately map surficial flowpaths/routing and the subwatershed outlet/pour point.

Upon completion of the initial subwatershed delineation exercise, the Contractor shall further characterize the small drainage units by completing a finer scale analysis of land use, soil attributes, slope, land management (i.e., agricultural practices), municipal boundaries (e.g., MS4 boundaries and non-MS4 boundaries) etc. and classify via HRUs.

The Contractor shall also incorporate other modeling inputs such as:

- Daily precipitation data;
- Daily air temperature data;
- Other climatic information (e.g., wind speed, relative humidity, etc.);

³ WDNR website, <https://dnr.wi.gov/topic/tmdls/foxwolf/index.html>

- Point source input information (flow and loading information based on discharge monitoring records (DMR), annual average effluent flows, pollutant loads, etc.) and
- Other inputs.

TASK 5B: SWAT – CALIBRATION AND VALIDATION

The model calibration/validation is a critical step in ensuring the SWAT model will properly simulate the hydrologic conditions of the Northeastern Lakeshore area. Without adequate calibration/validation, the results of any model cannot be relied upon. Calibration of the model may require the Contractor to perform parameter adjustments within the range of expected variances. The Contractor shall base the calibration and validation on available historical data (i.e., 2 years for calibration and 2 years for validation). The Contractor shall discuss in advance with EPA and WDNR technical team about any proposed deviation from the intended calibration/validation approach.

The Contractor shall complete a SWAT model calibration exercise which will include successive runs of the SWAT model by adjusting calibration parameters until the SWAT modeling results agree with observed data. Calibration may include a goodness-of-fit exercise and or a sensitivity analysis to adjust modeling parameters to maximize a goodness-of-fit between the modeling results and the observed data.

After model calibration is completed, the Contractor shall validate the model by using additional observed data sets to confirm that the model can be used to simulate hydrologic conditions of the Northeastern Lakeshore area and be applicable to other conditions in this area. The Contractor shall use two evaluation criteria to assess model results simulated by the SWAT model. The first criteria shall be visual comparison of plots of modeled and observed values. The second criteria shall be error statistics that quantitatively measure the agreement between modeled and observed values. Coefficient of determination (R^2), Nash-Sutcliffe efficiency (NSE), Percent error (PBIAS), and the ratio of the root mean square error (RMSE) to observations, and standard deviation (RSR) may be used as evaluators of model performance. The WDNR shall work with the Contractor to determine a threshold of acceptable values for error statistics prior to initiation of this task.

The Contractor shall use the SWAT model to determine the magnitude of the daily pollutant load reduction of total phosphorus needed to achieve Wisconsin WQS for nutrients (TP) and sediment (TSS). The Contractor shall discuss in advance with EPA and WDNR technical team about any proposed deviation from the intended model setup.

DELIVERABLE FOR TASK 5:

5: A SWAT Model for the NE Lakeshore Area – (includes the components of Tasks 5A and 5B)

TASK 6: MODELING FINAL REPORT

The Contractor shall prepare a final report documenting the model development and calibration process that was performed in Tasks 5A and 5B of this TO. The report shall include discussion of:

- Model setup;
- Data which was used in the SWAT model (e.g., streamflow data, water quality data, agricultural data, etc.);
- Subwatershed delineation;
- Parameters which factored into HRUs characterization (e.g., soils, slope, etc.);
- Simulation period;
- Calibration approach;

- Validation approach;
- Calibration and validation results and
- Use of SWAT model to characterize pollutants in the Northeastern Lakeshore area.

WDNR anticipates that this final SWAT Modeling Report will serve as an Appendix for the final NE Lakeshore TMDL Report to be developed at some time in the future by WDNR.

DELIVERABLES FOR TASK 6:

6.1: Modeling Final Report, Draft

6.2: Modeling Final Report, Final

E. DELIVERABLES SCHEDULE TIMELINE

Section and Task #	BENCHMARK, DELIVERABLE or MILESTONE	SCHEDULE
D - 1	Kickoff Phone Call	Within 5 business days of the Task Order award.
D- 2	Contractor participates in Monthly Work Group Conference Calls	Monthly Work Group calls shall begin the first month after the kickoff call and occur at a minimum of once a month.
D - 3	Contractor prepares Monthly Progress Reports	Monthly progress reports shall be submitted to TOCOR within three (3) calendar days of invoice submission to EPA.
D - 4	<u>QAPP Development:</u> Contractor develops preliminary draft QAPP and furnishes to TOCOR for review and comment by TOCOR and EPA QA Officer.	Within 45 calendar days after the kickoff call or an alternate date as agreed upon by EPA, WDNR, and Contractor.
	<u>QAPP Development:</u> Contractor develops revised draft QAPP after receiving written comments from TOCOR.	Within 30 calendar days after the receipt of comments on the preliminary draft QAPP from TOCOR or an alternate date as agreed upon by EPA, WDNR, and Contractor.
	<u>QAPP Development:</u> Contractor develops final draft QAPP after receiving written comments from TOCOR.	Within 30 calendar days after the receipt of comments on the revised draft QAPP from TOCOR or an alternate date as agreed upon by EPA, WDNR, and Contractor.
D - 5	<u>SWAT Model Development:</u> Data analysis, model preparation, watershed delineation, calibration and validation.	Within 120 calendar days of the finalized QAPP (i.e., the final signed QAPP by all EPA, WDNR and the Contractor) or an alternative date as agreed upon by EPA, WDNR, and Contractor.
D - 6	<u>SWAT Modeling Report development:</u> Contractor develops preliminary draft SWAT Modeling Report and furnishes to TOCOR for review and comment by TOCOR and WDNR.	Due on a date no later than 180 calendar days after the finalized QAPP or an alternative date agreed upon by EPA, WDNR, and Contractor.
	<u>SWAT Modeling Report development:</u> Contractor develops final draft of the SWAT Modeling Report after receiving comments from TOCOR and WDNR.	Final draft SWAT Modeling Report due on a date no later than 60 days after comments received on the Draft SWAT Modeling Report or an alternative date agreed upon by EPA, WDNR, and Contractor.
I	Contractor completes validation of task order deliverables for Section 508 compliance.	Within 10 calendar days after receipt of EPA acceptance of final drafts through written technical direction from TOCOR.

1. For each deliverable submitted electronically, the Contractor shall submit electronic copies to the EPA TOCOR, and project manager from WDNR in a format that EPA and WDNR can support. Deliverables shall be submitted through electronic mail, or through another method determined mutually acceptable by the Contractor, EPA and WDNR.
2. It is anticipated that each deliverable will be submitted in a draft form unless otherwise noted in this PWS. EPA, in consultation with WDNR, will review the draft deliverables and provide comments. The Contractor shall respond to these comments within seven (7) business days unless otherwise specified in this PWS or otherwise directed by the EPA TOCOR. Initial response to comments can be through electronic mail. Deliverables shall be revised upon direction from the

EPA TOCOR within a time frame mutually agreed upon by EPA, WDNR and the Contractor, but within at least three (3) work days and no more than 30 work days. EPA, in consultation with WDNR, will determine whether a deliverable is in an approvable and/or acceptable form. The EPA's determination will be based on the Contractor's clarifications and/or revisions, including any necessary re-submittals. Written direction from the EPA TOCOR can be through E-mail.

3. Presentations and handouts for meetings shall be submitted to the EPA TOCOR and the project manager from WDNR, at least ten (10) business days before the scheduled date of meeting(s). Revisions to the presentations and handouts shall be made in accordance with comments received from EPA and WDNR. Revised presentations and handouts shall be submitted within three (3) business days of the request by EPA for revisions or mutually agreed upon date by EPA, WDNR and the Contractor.
4. At the completion of the period of performance, or as requested throughout, the Contractor shall provide electronic copies of all project files to the EPA TOCOR on CD-ROM or DVD format.

F. REPORTING

All documentation and reporting under this TO shall comply with contract requirements. Reference Contract Clause C-1 (c) and Attachment 1, PWS, Section 2.5.3.4, 3.7, and 4.3.7. See contract clause F.2, F.3, and J.2 "List of Attachments, Number 2 - Reports of Work".

G. TRAVEL

All travel under this TO shall comply with contract requirements and only according to specific technical direction. See contract clause H.17.

H. CONTRACTOR IDENTIFICATION

Contractor personnel shall always identify themselves as Contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative.

Any questions raised by the public regarding EPA policy should be responded to by EPA representatives, not Contractor personnel. If EPA is not available to respond, the Contractor shall provide the public with an appropriate agency contact.

I. VALIDATION OF TASK ORDER DELIVERABLES FOR SECTION 508 COMPLIANCE

The Contractor shall support the TOCOR in conducting a "Final Deliverable Validation" to ensure compliance with Section 508 and the Federal Acquisition Regulations (FAR) related to "electronic and information technology (EIT) deliverables". The Contractor shall furnish certification, in writing, to the TOCOR that the Contractor has complied with EPAAR Clause 1552.211-79 "Compliance with EPA Policies for Information Resources Management" (Reference Contract Clause C-1), including the requirement that all electronic and information technology (EIT) deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/> Reference Contract Clause C-1 (c) and Attachment 1, Statement of Work (SOW), Section 2.5.3.4, 3.7, and 4.3.7.

J. NOTIFICATION OF COMPLETION OF TO DELIVERABLES

In the event that the TO reaches thirty (30) days prior to the end of the Period of Performance and the Contractor assesses that the deliverables, benchmarks or milestones will not be able to be completed, the Contractor shall immediately furnish written notification to the EPA TOCOR and the CO/CS.

K. SUPPORTING DOCUMENTS AND GUIDANCE

- EPA Requirements for Quality Assurance Project Plans (QA/R-5). EPA/240/B-01/003. May 2006. (<http://www.epa.gov/quality/qs-docs/r5-final.pdf>)
- “*EPA Handbook for Developing Watershed Plans to Restore and Protect Our Waters*,” EPA 841-B-08-002, March 2008. (http://water.epa.gov/polwaste/nps/handbook_index.cfm)
- Data Quality Assessment: *A Reviewer’s Guide* (QA-G-9R). EPA/240/B-06/002. February 2006. (<http://www.epa.gov/QUALITY/qs-docs/g9r-final.pdf>)
- “*Guidance for Quality Assurance Project Plans for Modeling* (QA/G-5M). EPA/240/R-02/007. December 2002. (<http://www.epa.gov/quality/qs-docs/g5m-final.pdf>)
- Data Quality Assessment: Statistical Tools for Practitioners (QA/G-9S). EPA/240/B-06/003. February 2006. (<http://www.epa.gov/quality/qs-docs/g9s-final.pdf>)
- For more information on data quality guidance, visit EPA’s website at www.epa.gov/quality/.
- Guidance on Water-Quality-Based Decisions: The TMDL Process. EPA440-4-91-001. April 1991. (http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/decisions_index.cfm)

CONTRACTING OFFICER

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Fax: 513-487-2545
E-mail: lower.angela@epa.gov

CONTRACT SPECIALIST

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Fax: 513-487-2545
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TASK ORDER CONTRACT OFFICER REPRESENTATIVE (TOCOR):

Paul Proto
U.S. EPA, Region 5
Watersheds and Wetlands Branch, WW-16J
77 West Jackson Blvd., Chicago, IL 60604
Phone: 312-353-8657
Fax: 312-697-2713
E-mail: proto.paul@epa.gov

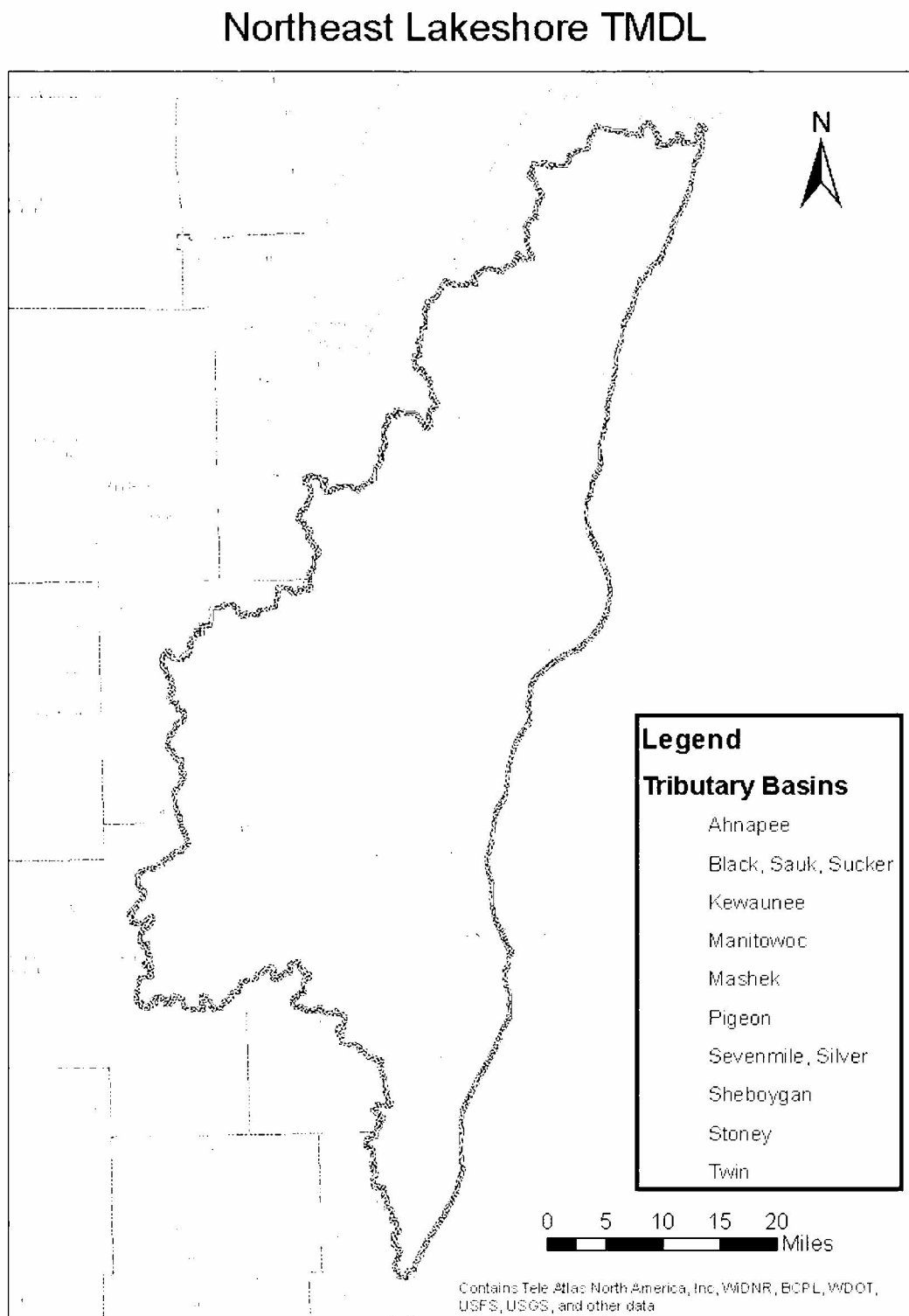
ALTERNATE TASK ORDER CONTRACT OFFICER REPRESENTATIVE (ALT-TOCOR):

Donna Keclik
U.S. EPA, Region 5
Watersheds and Wetlands Branch, WW-16J
77 West Jackson Blvd., Chicago, IL 60604
Phone: 312-886-6766
Fax: 312-692-2999
E-mail: keclik.donna@epa.gov

TECHNICAL LEAD

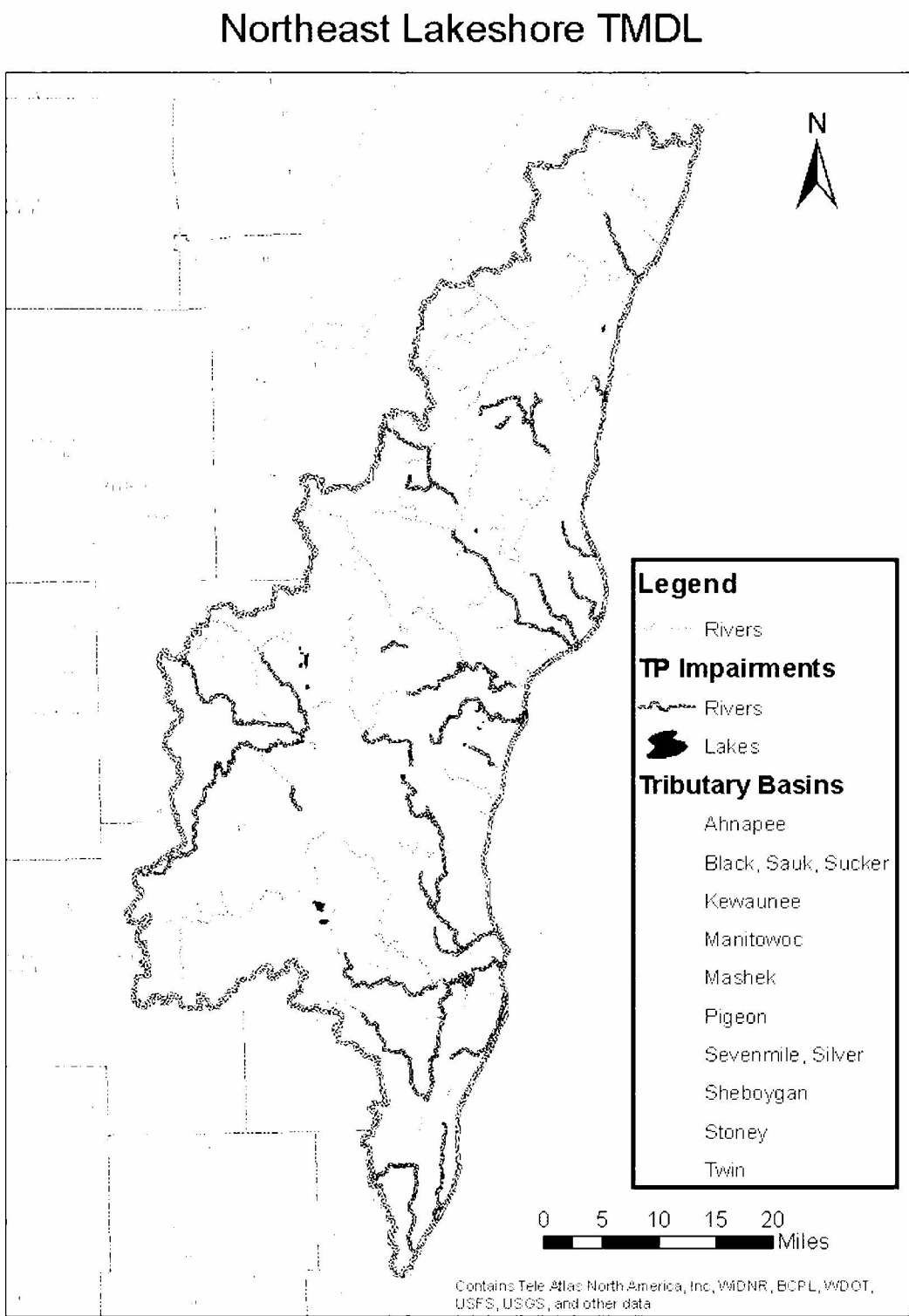
James Ruppel
U.S. EPA, Region 5
Watersheds and Wetlands Branch, WW-16J
77 West Jackson Blvd., Chicago, IL 60604
Phone: 312-886-1823
E-mail: ruppel.james@epa.gov

Figure 1: Spatial Extent of WDNR's Northeast Lakeshore TMDL (WI)



WDNR 1/4/2018

Figure 2: Total Phosphorus impaired segments in the Northeast Lakeshore TMDL (WI)



WDNR 1/8/2018

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

1

6

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER 12/21/2018		2. CONTRACT NO. (If any) EP-C-17-044		6. SHIP TO:	
3. ORDER NO. 68HERC19F0046		4. REQUISITION/REFERENCE NO. PR-OW-18-00424		a. NAME OF CONSIGNEE AWPD-WB	
5. ISSUING OFFICE (Address correspondence to) CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001				b. STREET ADDRESS US EPA-OW-OWOW-AWPD-WB 1200 PENNSYLVANIA AVE., NW MC-4503-T	
				c. CITY WASHINGTON	e. ZIP CODE 20460
7. TO: (b)(4)		f. SHIP VIA			
a. NAME OF CONTRACTOR CADMUS GROUP, INC., THE				8. TYPE OF ORDER	
b. COMPANY NAME				<input type="checkbox"/> a. PURCHASE <input checked="" type="checkbox"/> b. DELIVERY REFERENCE YOUR: Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.	
c. STREET ADDRESS 100 5TH AVENUE SUITE 100				Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
d. CITY WALTHAM		e. STATE MA	f. ZIP CODE 02451		
9. ACCOUNTING AND APPROPRIATION DATA See Schedule				10. REQUISITIONING OFFICE AWPD-WB	
11. BUSINESS CLASSIFICATION (Check appropriate box(es))					
<input type="checkbox"/> a. SMALL <input checked="" type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. SERVICE-DISABLED VETERAN-OWNED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM <input type="checkbox"/> h. EDWOSB					
12. F.O.B. POINT					
13. PLACE OF		14. GOVERNMENT B/L NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) 1 Days After Award	
a. INSPECTION Destination	b. ACCEPTANCE Destination				
16. DISCOUNT TERMS					

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)	
	DUNS Number: 101163731 CLEAN WATER ACT SECTION 303(D) PROGRAM SUPPORT TOCOR: Rosaura Conde Max Expire Date: 08/02/2023 Invoice Approver: Rosaura Conde Alt Invoice App: Carol Peterson Continued ...						
18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOTAL (Cont. pages)	
21. MAIL INVOICE TO:							
a. NAME RTP Finance Center							
b. STREET ADDRESS (or P.O. Box) US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts						\$85,665.00	17(i) GRAND TOTAL
c. CITY Durham						\$85,665.00	
d. STATE NC							
e. ZIP CODE 27711							

22. UNITED STATES OF

AMERICA BY (Signature)

12/21/2018

ELECTRONIC SIGNATURE

23. NAME (Typed)

Angela Lower

TITLE: CONTRACTING/ORDERING OFFICER

ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

PAGE NO
2

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER 12/21/2018	CONTRACT NO. EP-C-17-044	ORDER NO. 68HERC19F0046
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ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
0001	Admin Office: CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001 Period of Performance: 12/21/2018 to 08/02/2019 BASE PERIOD for CWA SECTION 303(d) PROGRAM SUPPORT in accordance with the attached PWS. Accounting Info: 19-20-B-87FN-000BD4-2505-1987NE9001-00 1 BFY: 19 EFY: 20 Fund: B Budget Org: 87FN Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 1987NE9001-001 Funding Flag: Complete Funded: \$85,665.00				85,665.00	
0002	OPTION PERIOD I CWA SECTION 303(d) PROGRAM SUPPORT in accordance with the attached PWS. (Option Line Item) 08/02/2019					
0003	OPTION PERIOD II CWA SECTION 303(d) PROGRAM SUPPORT in accordance with the attached PWS. (Option Line Item) 08/02/2020					
0004	OPTION PERIOD III CWA SECTION 303(d) PROGRAM SUPPORT in accordance with the attached PWS. (Option Line Item) 08/02/2021					
0005	OPTION PERIOD IV CWA SECTION 303(d) PROGRAM SUPPORT in accordance with the attached PWS. (Option Line Item) Continued ...					

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$85,665.00

ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

PAGE NO
3

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER
12/21/2018

CONTRACT NO.
EP-C-17-044

ORDER NO.
68HERC19F0046

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	08/02/2022					

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$0.00

1552.217-71 OPTION TO EXTEND THE TERM OF THE CONTRACT-COST-TYPE CONTRACT (APR 1984)

The Government has the option to extend the term of this contract for four (4) additional period(s). If more than 30 days remain in the contract period of performance, the Government, without prior written notification, may exercise this option by issuing a contract modification. To exercise this option within the last 30 days of the period of performance, the Government must provide to the Contractor written notification prior to that last 30-days of the period. This preliminary notification does not commit the Government to exercising the option. Use of an option will result in the following contract modifications:

(a) The "Period of Performance" clause will be amended to cover a base period and option periods:

	Period Start Date	End Date
Base Period	Award	– 08/02/2019
Option Period 1	08/03/2019	– 08/02/2020
Option Period 2	08/03/2020	– 08/02/2021
Option Period 3	08/03/2021	– 08/02/2022
Option Period 4	08/03/2022	– 08/02/2023

(b) Paragraph (a) of the "Level of Effort" clause will be amended to reflect a new and separate level of effort of:

Period	Level of Effort
Base Period	1000
Option Period 1	1000
Option Period 2	1000
Option Period 3	1000
Option Period 4	1000

(c) The "Estimated Cost and Fixed Fee" clause will be amended to reflect increased estimated costs and fixed fee for each option period as follows:

Period	Estimated Cost	Fixed Fee	Total CPFF
Option Period 1	(b)(4)		\$86,762
Option Period 2			\$88,325
Option Period 3			\$89,919
Option Period 4			\$91,546

(d) If the contract contains "not to exceed amounts" for elements of other direct costs (ODC), those amounts will be increased as follows: N/A

LOCAL CLAUSES EPA-B-32-101 LIMITATION OF FUNDS NOTICE

(a) Pursuant to the Limitation of Funds clause, incremental funding in the amount of (b)(4) is allotted to cover estimated cost. Funding in the amount of (b)(4) is provided to cover the corresponding increment of base fee. The amount allotted for costs is estimated to cover the contractor's performance through **08/02/2019**.

(b) When the contract is fully funded (i.e. the sum of the total estimated cost, base fee, award fee pool available for award, and award fee awarded, as set forth in the schedule of this contract), the Limitation of Cost clause shall become applicable.

(c) Recapitulation of Funds

EP-C-17-044
CADMUS
Task Order 68HERC19F0046
Base Period: Award - 08/02/2019

Modification	Cost	Fixed Fee	Cost Plus Fixed Fee
Award	\$	(b)(4)	\$ 85,665.00
Funded Amount	\$		\$ 85,665.00
Contract Amount	\$		\$ 85,665.00
Balance Unfunded	\$		\$ -

LOCAL CLAUSES EPA-B-16-102 ESTIMATED COST AND FIXED FEE

(a) The estimated cost of this contract is (b)(4)

(b) The fixed fee (b)(4)

(c) The total estimated cost and fixed fee is **\$85,665.00**

LOCAL CLAUSE EPA-G-42-101 CONTRACT ADMINISTRATION REPRESENTATIVES

Task Order Contracting Officers Representatives (CORs)/Project Officers for this contract are as follows:

Task Order COR (TOCOR): Rosaura Conde, conde.rosaura@cpa.gov PH (202)-566-1514

Alternate Task Order COR (Alt TOCOR): Carol Peterson, pcterson.carol@cpa.gov PH 202-566-1304

Contracting Officials responsible for administering this contract are as follows:

Contracting Officer

Angela Lower, US EPA. Cincinnati Procurement Operations Division, 26 W MLK Dr MS W136A, Cincinnati, Ohio 45268 lower.angela@cpa.gov

Contracts Specialist

Lisa Mitchell-Flinn, US EPA. Cincinnati Procurement Operations Division, 26 W MLK Dr MS W136A, Cincinnati, Ohio 45268 lower.angela@cpa.gov

PERFORMANCE WORK STATEMENT
TSAWP Contracts Task Order Solicitation PR-OW-18-00424
[Contract Number] [Task Order Number]

CLEAN WATER ACT SECTION 303(D) PROGRAM SUPPORT

A. BACKGROUND

The Section 303(d) program is responsible for implementing the portions of the Clean Water Act (CWA) dealing with identification of impaired waters and development of Total Maximum Daily Loads (TMDLs). The CWA requires states to identify waters that do not or are not expected to meet applicable water quality standards with current pollution control technologies alone. States then develop TMDLs at a level necessary to achieve the applicable state water quality standards. Waters targeted for TMDL development are based on the extent of pollution and the use(s) of the water, (e.g., health of aquatic life or public recreation), and the identity of the pollutant(s) causing or expected to cause the impairment. Additional information about the CWA Section 303(d) program can be found at: <https://www.epa.gov/tmdl>.

This Task Order (TO) will support the Environmental Protection Agency (EPA) by providing research and analysis on key issues pertaining to water quality assessment methodologies, impaired waters listing practices and TMDL development. Tasks in this TO have the purpose of informing policy development, program decisions, and program staff. Additionally, this TO aims to put the information gathered in context for program staff through the development of training slides or other instructional materials.

Research topics will be identified in an iterative way as needs for the program evolve during the period of performance (see Tasks 3 through 5). EPA anticipates that no more than eight (8) topics will be addressed each year, roughly two each quarter. Staff with strong writing and analytical skills, and with a historic understanding of the program are preferred.

B. Level of Effort

It is anticipated that the number of hours required for each period is as follows:

Base Year	1000
Option Year 1	1000
Option Year 2	1000
Option Year 3	1000
Option Year 4	1000

C. Tasks

After task order (TO) award and initiation of Task 1, the Task Order Contracting Officer Representative (TOCOR) shall furnish technical direction (TD) on a case-by-case basis. The Contractor shall anticipate working with the TOCOR and EPA/state technical staff; however, TOCOR, the EPA Alternate TOCOR (if the TOCOR is on leave or travel), the EPA Contract Level Contracting Officer Representative (CL-COR) and the EPA Contracting Officer (CO) are the only individuals authorized to issue technical direction. Other government personnel may engage in technical communications with the contractor, but are not authorized to give technical direction.

Task 1. Quality Assurance/Quality Control

Quality Assurance (QA) is an important component of EPA's work to assure that minimum quality standards are attained. The contractor shall follow the Quality Management Plan (QMP) that has been customized and incorporated into this Technical Support for Assessment and Watershed Protection (TSAWP) contract. In

addition, the contractor shall document the processes for Quality Assurance that it will follow for the tasks under this Task Order. EPA policy requires that an approved Quality Assurance Project Plan (QAPP) be in place before any work begins that involves the collection, generation, evaluation, analysis or use of environmental data.

The Performance Work Statement (PWS) includes activities that would constitute secondary data collection. These tasks will be followed to comply with the quality assurance/quality control requirement:

- 1.1 Within seven (7) business days after the kick-off meeting (Task 2.1), the contractor shall prepare and submit for EPA review a draft Quality Assurance Project Plan (QAPP) documenting how quality assurance (QA) and quality control (QC) will be applied to the generation, collection, evaluation, analysis and use of environmental data. EPA will review the contractor's draft QAPP and provide the Contractor with written approval or written comments. The contractor shall write the QAPP using the active voice. The QAPP shall provide enough detail to clearly describe objectives of the project supported by the task order; the type of data to be collected, generated, or used under this task order to support the project objectives; the quality objectives needed to ensure that these will support the project objectives; and the quality assurance and quality control activities to be performed to ensure that any results obtained are documented and are of the type, quality, transparency, and reproducibility needed. The QAPP must be consistent with the guidance document, EPA Requirements for Quality Assurance Project Plans: EPA QA/R-5 (www.epa.gov/quality/qs-docs/r5-final.pdf).
- 1.2 The Contractor shall submit a revised QAPP within six (6) business days of receipt of the written comments on the draft QAPP, unless otherwise instructed by the EPA Task Order Contracting Officer's Representative (TOCOR). Under no circumstances shall work that involves the generation, collection, evaluation, analysis, or use of environmental data be performed until the contractor receives written notification from the EPA TOCOR that EPA has approved the contractor's QAPP. Any non-sampling/non-analytical work that involves the generation, collection, evaluation, analysis, or use of environmental data that is initiated prior to EPA approval of the contractor's QAPP must be performed in accordance with the approved QAPP. EPA may request the contractor to furnish written documentation from the Contractor showing that the contractor has complied with this requirement. All QA documentation, including the QAPP, prepared under this Task Order, shall be considered non-proprietary, and shall be made available to the public upon request.

Additional QA Documentation Required

- 1.3 In addition to the QAPP requirements described above, for all major deliverables produced by the contractor under this Task Order, a discussion of the QA/QC activities that were or will be performed to support the deliverable must accompany the deliverable. For newsletters, fact sheets, and annual reports that rely exclusively on secondary data, these can be in separate documents, rather than embedded in the deliverables themselves. This shall be at the TOCOR's discretion, not the Contractor's. The contractor shall immediately notify the TOCOR of any QA problems encountered that may impact the performance of this Task Order, with recommendations for corrective action. (See Task 2.4.)
- 1.4 The contractor also shall provide EPA with monthly status reports of QA-related activities performed during implementation of this Task Order. These monthly QA reports shall identify QA activities performed to support implementation of this Task Order, problems encountered, deviations from the QAPP, and corrective actions taken. If desired, the contractor may include this as a part of the contract-required monthly financial/technical progress report. All written materials must be compliance with Section 508 of the Americans with Disabilities Act.
- 1.5 If, during the Period of Performance of this Task Order, the EPA TOCOR provides technical direction that revisions to the QAPP are determined to be necessary, the contractor shall submit a revised QAPP,

including the revision summary, within seven (7) business days after receiving written technical direction to do so. When preparing this draft revised QAPP, the contractor shall ensure that it is written in an active voice, changes are presented in a track changes version of MS Word, and shall include a version history page that summarizes changes made. The contractor also shall provide EPA with copies of any modified SOPs or checklists. EPA will review the draft revised QAPP and provide the contractor with written approval or comments. The contractor shall provide a final QAPP that responds to EPA's written comments within six (6) business days of receipt of EPA's comments on the draft revised QAPP.

Task 1 Deliverables:

- Draft QAPP
- Revised QAPP

Task 2 – Communications

- 2.1 Prior to beginning work on this Task Order, the TOCOR shall schedule a kick-off meeting with the contractor to discuss the tasks within this Task Order, the goals of the Task Order, and to review the schedule of milestones and expectations. The contractor shall participate in a kickoff meeting with the TOCOR either in person or via conference call to discuss the following: points of contact, roles and responsibilities, Quality Assurance protocols, timelines, the schedule of benchmarks, milestones and deliverables, establish dates and time for monthly calls, and monthly technical progress reports and general Task Order administrative information. The contractor shall not incur any additional billable costs other than those related to Task 1 and Task 2.1 until receipt from TOCOR of written notification that EPA's Quality Assurance Officer has accepted the QAPP.
- 2.2 The TOCOR shall coordinate and set up regular status discussions (at least monthly) between EPA staff and the contractor's technical lead to discuss the status and progress of the work under this Task Order. The contractor shall participate in these discussions, which may either be in person or via phone, if face-to-face communication is not convenient to either party. The frequency of these discussions may be modified based on project status at the request of the contractor and only as approved by the TOCOR. TOCOR shall provide the contractor with one-week notice of any scheduled status calls. All status discussions will take place during normal business hours: 9:00AM to 5:30PM Eastern Time. The contractor shall provide meeting summaries after the monthly discussions within five (5) business days in draft form for the TOCOR to review. The TOCOR will provide any edits and/or comments on the meeting minutes to the contractor within five (5) business days of receipt of draft summaries. Then, final written meeting summaries shall be provided within five (5) business days after receipt of comments from the TOCOR. If no edits or comments are provided by the TOCOR, the draft written summary will constitute as the final summary.
- 2.3 The contractor shall provide monthly progress reports on the status of all tasks in this Task Order. These progress reports shall meet the requirements of PWS Section D: Reporting, as well as the QA documentation requirements specified in Task 1.4.
- 2.4 The contractor shall notify the TOCOR of any problems, delays or questions as soon as they arise, including immediate notification of any quality assurance issues. Problems, delays, or significant questions should be brought to the attention of the TOCOR in real time, but in any case, not later than three (3) business days. This notification may be sent by phone or email, but if transmitted by phone, the contractor shall send a follow-up email to the TOCOR within three (3) business days, describing the problem.

Task 2 Deliverables:

- Kick-off meeting
- Status calls
- Status call summary

- Monthly progress reports
- Progress report pre-midyear
- Progress report pre-end of year

Task 3 – Research and Reports – Impaired Waters Listing

Often in the process of providing policy direction for the program, EPA identifies a need for additional information in the form of summaries of standard practices used across the states and territories. For instance, in considering recommendations for assessing waters using a recreational criterion, EPA would need to better understand how the states are using beach advisory data and information in determining impairment status. The purpose of this task is to inform a topic area within impaired waters listing and/or research questions regarding the approaches used to conduct assessments. EPA anticipates no more than three research topics or questions will be worked on by contractor each year. The schedule in Section C reflects the assumption that we would be working on no more than one topic per quarter for both Task 3 and 4. The contractor shall provide a summary of their findings for each one in the form of a research paper or fact sheet with references to relevant sections in documents where supporting information can be found. The task will be further defined through technical direction from the EPA TOCOR using the process described below. Contract staff with strong analytical and writing skills, as well as an understanding of the impaired waters listing process would be best able to fulfil the needs of this task.

- 3.1 Scoping Meeting. Each contract year, EPA will develop a list of potential research topics, each with a description, deliverable type (e.g., fact sheet, research paper), and level of priority (i.e., high, medium, low). EPA TOCOR and the contractor will discuss potential approaches to tackle these questions, product needs, and timing for deliverables. At this meeting the contractor shall be expected to request additional information needed to develop a scoping document from the EPA TOCOR. The topics identified at this meeting will largely guide projects for that contract year, but may be revisited upon request from EPA. Revisions to the list of topics will be done following the process outlined in task 3.1 through 3.4.
- 3.2 Scoping Document. For each topic identified at the scoping meeting the contractor shall provide a proposed plan and schedule. The schedule should include periodic check-in meetings (e.g., once a month) and allow sufficient time for comments from the EPA TOCOR prior to delivery of the final product.
- 3.3 Compilation of Relevant Documents. The contractor shall compile relevant documentation regarding state assessment methodologies for identifying impaired waters. These can typically be found in the form of an Integrated Report, listing methodology document, or state rule. The documents should be stored in a platform that can be accessed by both the contractor and EPA TOCOR (e.g., cloud based file sharing system or FTP site) and updated, as needed, each year.
- 3.4 Summary Findings. The contractor shall develop separate deliverables for each research topic identified. The type of the deliverable will be discussed at the scoping meeting and included in the Scoping Document. Most of these deliverables will likely take the form of a research paper or fact sheet with references to supporting information. We anticipate no more than five (5) Summary Finding documents will be developed by contractor each year.

Task 3 Deliverables:

- Scoping meeting
- Scoping document
- Repository of relevant documents (per project or combined, as appropriate)
- Draft Summary Findings document (per project)
- Final Summary Findings document (per project)

Task 4 – Research and Reports – Total Maximum Daily Loads (TMDLs)

EPA has approved and established close to 75,000 TMDLs since 1996. As the program evolves, EPA often considers existing policy and guidance in light of current TMDLs development practices. For instance, in evaluating recommendations for a cadmium water quality criterion, EPA would need to consider approaches currently used in TMDLs for the hardness dependent metals criteria. The purpose of this task is to help address these questions and inform the policy process. This Task may also be used to conduct a peer-review of a specific TMDL. EPA anticipates no more than six (6) research topics and/or peer reviews will be worked on by contractor each year. The schedule in Section C reflects the assumption that we would be working on no more than one topic per quarter for both Task 3 and 4. The contractor shall provide a summary of their findings for each one in the form of a research paper, report or fact sheet with references to relevant sections in documents where supporting information can be found. The task will be further defined through technical direction from the EPA TOCOR using the process described below. Contract staff with strong analytical and writing skills, as well as an understanding of TMDLs process would be best able to fulfil the needs of this task.

- 4.1 Scoping Meeting. Each contract year, EPA will develop a list of potential research topics, each with a description, deliverable type (e.g., fact sheet, research paper), and level of priority (i.e., high, medium, low). EPA TOCOR and the contractor will discuss potential approaches to tackle these questions, product needs, and timing for deliverables. At this meeting the contractor will be expected to request additional information needed to develop a scoping document from the EPA TOCOR. The topics identified at this meeting will largely guide projects for that contract year, but may be revisited upon request from EPA. Revisions to the list of topics will be done following the process outlined in task 4.1 through 3.4.
- 4.2 Scoping Document. For each topic identified at the scoping meeting the contractor shall provide a proposed plan and schedule. The schedule should include periodic check-in meetings (e.g., once a month) and allow sufficient time for comments from the EPA TOCOR prior to delivery of the final product. The contractor will also include a discussion of specific information needed from the impaired waters listing and TMDL database (ATTAINS), preferably in the form of a query with specific fields (e.g., TMDL ID, waterbody name) to include in the data download. If the research question being asked necessitates looking at a subset of TMDLs, the scoping document should propose an approach and criteria for identifying individual TMDL documents to look at.
- 4.3 Compilation of Relevant Documents. EPA will provide the contractor with a current download from ATTAINS according to the specifications defined in the Scoping Document or specific TMDL documents, if pursuing peer-review. The contractor shall compile relevant TMDL documents needed to answer each question. The documents should be stored in a platform that can be accessed by both the contractor and EPA TOCOR (e.g., cloud based file sharing system or FTP site)¹.
- 4.4 Summary Findings. The contractor shall develop separate deliverables for each research topic identified. The form of the deliverable will be discussed at the scoping meeting and included in the Scoping Document. Most of these deliverables will likely take the form of a research paper or fact sheet with references to supporting information. We anticipate that no more than three Summary Finding documents will be developed by the contractor each year.

Task 4 Deliverables (per project):

- Scoping meeting
- Scoping document
- Repository of relevant documents (per project)
- Draft Summary Findings document (per project)

¹ The repository is for internal use. EPA TOCOR has access to Microsoft OneDrive and Sharepoint technology.

- Final Summary Findings document (per project)

Task 5 – In-Depth Analysis or Training Materials

Once a research product is finalized, EPA may decide that additional analysis or a different format is needed to further inform the issue. In-depth analysis could include a comparison of different approaches or a series of case studies illustrating a specific approach. Another option under this task is to develop training materials based on the information collected. This task is designed to build off one of the topics researched in Tasks 3 and 4. EPA anticipates that this level of detail will be reserved for no more than three (3) topics each year. This task will be further defined through technical direction from the EPA TOCOR using the process described below. Contract staff with strong analytical and writing skills, as well as an understanding of the impaired waters listing process would be best able to fulfil the needs of this task.

- 5.1 Scoping Meeting. Since this task is meant to build on work done under Tasks 3 and 4, the scoping meeting will happen after a final deliverable under these tasks in consultation with the EPA TOCOR. The EPA TOCOR and the contractor will discuss potential approaches to tackle these questions, product needs, and timing for deliverables. At this meeting the contractor will request any additional information needed to develop a scoping document.
- 5.2 Scoping Document. For the topic identified at the scoping meeting the contractor shall provide a proposed plan and schedule. The schedule should include periodic check-in meetings (e.g., once a month) and allow sufficient time for comments from the EPA TOCOR prior to delivery of the final product. The contractor will also include any specific needs for documentation or data pulls from EPA.
- 5.3 Compilation of Relevant Documents. The contractor shall compile any additional documents needed for this task and store them in a platform that can be accessed by both the contractor and EPA TOCOR (e.g., cloud based file sharing system or FTP site).
- 5.4 Analysis document. The form of the deliverable will be discussed at the scoping meeting and included in the Scoping Document. In-depth analysis would include a comparison of different approaches or a series of case studies illustrating a specific approach. We anticipate that no more than two in-depth analysis documents will be developed by the contractor each year.

Task 5 Deliverables:

- Scoping meeting
- Scoping document
- Updated repository of documents (updated from Task 3 or 4)
- Draft Summary Findings document (per project)
- Final Summary Findings document (per project)

C. SCHEDULE OF BENCHMARKS, DELIVERABLES & MILESTONES:

Base Period: 12 months		
TASK	BENCHMARK / DELIVERABLE / MILESTONES	SCHEDULE
1-1	Draft QAPP	Within 7 business days from Kick-off meeting (Task 2.1)
1-2	Final QAPP	Within 6 business days from written comments on draft.
2-1	Kick-off meeting	Within 10 days of TO Award
2-1	Summary of Kick-off meeting	Within 5 days after meeting
2-2	Monthly status calls	Agree on with contractor at Kick-off meeting
2-2	Monthly status call summary	Within 5 days after call
2-3	Monthly progress reports	As specified in contract
2-3	Progress report pre-midyear	NLT 60 days prior to midpoint of base year
2-3	Progress report pre-end of year	NLT 60 days prior to end of base year
3-1	Scoping meeting	Within 30 days of TO Award
3-2	Scoping document	Within 10 days from Scoping Meeting
4-1	Scoping meeting	Within 30 days of TO Award
4-2	Scoping document	Within 10 days from Scoping Meeting
5-1	Scoping meeting	Within 10 days of EPA TOCOR Request
5-2	Scoping document	Within 10 days from Scoping Meeting
RESEARCH PROJECT DETAILED DELIVERABLES AND MILESTONES		
3-3	Repository of Relevant Documents	Within 30 days of accepted EPA TOCOR Scoping Document (Task 3-2)
3-4	Draft Summary Findings Document	Within 60 days of beginning of each project (defined timeline in Scoping Document – Task 3-2)
3-5	Final Summary Findings Document	Within 120 days of beginning of each project (defined timeline in Scoping Document – Task 3-2)
4-3	Repository of Relevant Documents	Within 30 days of accepted EPA TOCOR Scoping Document (Task 4-2)
4-4	Draft Summary Findings Document	Within 60 days of beginning of each project (defined timeline in Scoping Document – Task 4-2)
4-5	Final Summary Findings Document	Within 120 days of beginning of each project (defined timeline in Scoping Document – Task 4-2)
5-3	Updated Repository of Relevant Documents	Within 15 days of accepted EPA TOCOR Scoping Document (Task 5-2)
5-4	Draft Summary Findings Document	Within 90 days of beginning of each project (defined timeline in Scoping Document – Task 5-2)
5-5	Final Summary Findings Document	Within 180 days of beginning of each project (defined timeline in Scoping Document – Task 5-2)
Option Period 1: 12 months		
TASK	BENCHMARK / DELIVERABLE / MILESTONES	SCHEDULE
1-2	Written summary of QAPP update check	Within 30 days of beginning of new Option Period
1-2	QAPP update, if requested through Technical Direction.	10-15 business days after receipt of written technical direction

2-2	Status calls	Agree on with contractor at Kick-off meeting
2-2	Status call summary	Within 5 days after call
2-3	Monthly progress reports	As specified in contract
2-3	Progress report pre-midyear	NLT 60 days prior to midpoint of new Option Period
2-3	Progress report pre-end of year	NLT 60 days prior to end of Option Period
3-1	Scoping meeting	Within 30 days of new Option Period
3-2	Scoping document	Within 10 days from Scoping Meeting
4-1	Scoping meeting	Within 30 days of new Option Period
4-2	Scoping document	Within 10 days from Scoping Meeting
5-1	Scoping meeting	Within 10 days of EPA TOCOR Request
5-2	Scoping document	Within 10 days from Scoping Meeting
RESEARCH PROJECT DETAILED DELIVERABLES AND MILESTONES		
3-3	Repository of Relevant Documents	Within 30 days of accepted EPA TOCOR Scoping Document (Task 3-2)
3-4	Draft Summary Findings Document	Within 60 days of beginning of each project (defined timeline in Scoping Document – Task 3-2)
3-5	Final Summary Findings Document	Within 120 days of beginning of each project (defined timeline in Scoping Document – Task 3-2)
4-3	Repository of Relevant Documents	Within 30 days of accepted EPA TOCOR Scoping Document (Task 4-2)
4-4	Draft Summary Findings Document	Within 60 days of beginning of each project (defined timeline in Scoping Document – Task 4-2)
4-5	Final Summary Findings Document	Within 120 days of beginning of each project (defined timeline in Scoping Document – Task 4-2)
5-3	Updated Repository of Relevant Documents	Within 15 days of accepted EPA TOCOR Scoping Document (Task 5-2)
5-4	Draft Summary Findings Document	Within 90 days of beginning of each project (defined timeline in Scoping Document – Task 5-2)
5-5	Final Summary Findings Document	Within 180 days of beginning of each project (defined timeline in Scoping Document – Task 5-2)
Option Period 2: 12 months		
TASK	BENCHMARK / DELIVERABLE / MILESTONES	SCHEDULE
1-2	Written summary of QAPP update check	Within 30 days of beginning of new Option Period
1-2	QAPP update, if requested through Technical Direction.	10-15 business days after receipt of written technical direction
2-2	Status calls	Agree on with contractor at Kick-off meeting
2-2	Status call summary	Within 5 days after call
2-3	Monthly progress reports	As specified in contract
2-3	Progress report pre-midyear	NLT 60 days prior to midpoint of new Option Period
2-3	Progress report pre-end of year	NLT 60 days prior to end of Option Period
3-1	Scoping meeting	Within 30 days of new Option Period

3-2	Scoping document	Within 10 days from Scoping Meeting
4-1	Scoping meeting	Within 30 days of new Option Period
4-2	Scoping document	Within 10 days from Scoping Meeting
5-1	Scoping meeting	Within 10 days of EPA TOCOR Request
5-2	Scoping document	Within 10 days from Scoping Meeting
RESEARCH PROJECT DETAILED DELIVERABLES AND MILESTONES		
3-3	Repository of Relevant Documents	Within 30 days of accepted EPA TOCOR Scoping Document (Task 3-2)
3-4	Draft Summary Findings Document	Within 60 days of beginning of each project (defined timeline in Scoping Document – Task 3-2)
3-5	Final Summary Findings Document	Within 120 days of beginning of each project (defined timeline in Scoping Document – Task 3-2)
4-3	Repository of Relevant Documents	Within 30 days of accepted EPA TOCOR Scoping Document (Task 4-2)
4-4	Draft Summary Findings Document	Within 60 days of beginning of each project (defined timeline in Scoping Document – Task 4-2)
4-5	Final Summary Findings Document	Within 120 days of beginning of each project (defined timeline in Scoping Document – Task 4-2)
5-3	Updated Repository of Relevant Documents	Within 15 days of accepted EPA TOCOR Scoping Document (Task 5-2)
5-4	Draft Summary Findings Document	Within 90 days of beginning of each project (defined timeline in Scoping Document – Task 5-2)
5-5	Final Summary Findings Document	Within 180 days of beginning of each project (defined timeline in Scoping Document – Task 5-2)
Option Period 3: 12 months		
TASK	BENCHMARK / DELIVERABLE / MILESTONES	SCHEDULE
1-2	Written summary of QAPP update check	Within 30 days of beginning of new Option Period
1-2	QAPP update, if requested through Technical Direction.	10-15 business days after receipt of written technical direction
2-2	Status calls	Agree on with contractor at Kick-off meeting
2-2	Status call summary	Within 5 days after call
2-3	Monthly progress reports	As specified in contract
2-3	Progress report pre-midyear	NLT 60 days prior to midpoint of new Option Period
2-3	Progress report pre-end of year	NLT 60 days prior to end of Option Period
3-1	Scoping meeting	Within 30 days of new Option Period
3-2	Scoping document	Within 10 days from Scoping Meeting
4-1	Scoping meeting	Within 30 days of new Option Period
4-2	Scoping document	Within 10 days from Scoping Meeting
5-1	Scoping meeting	Within 10 days of EPA TOCOR Request
5-2	Scoping document	Within 10 days from Scoping Meeting
RESEARCH PROJECT DETAILED DELIVERABLES AND MILESTONES		
3-3	Repository of Relevant Documents	Within 30 days of accepted EPA TOCOR Scoping Document (Task 3-2)

3-4	Draft Summary Findings Document	Within 60 days of beginning of each project (defined timeline in Scoping Document – Task 3-2)
3-5	Final Summary Findings Document	Within 120 days of beginning of each project (defined timeline in Scoping Document – Task 3-2)
4-3	Repository of Relevant Documents	Within 30 days of accepted EPA TOCOR Scoping Document (Task 4-2)
4-4	Draft Summary Findings Document	Within 60 days of beginning of each project (defined timeline in Scoping Document – Task 4-2)
4-5	Final Summary Findings Document	Within 120 days of beginning of each project (defined timeline in Scoping Document – Task 4-2)
5-3	Updated Repository of Relevant Documents	Within 15 days of accepted EPA TOCOR Scoping Document (Task 5-2)
5-4	Draft Summary Findings Document	Within 90 days of beginning of each project (defined timeline in Scoping Document – Task 5-2)
5-5	Final Summary Findings Document	Within 180 days of beginning of each project (defined timeline in Scoping Document – Task 5-2)
Option Period 4: 11 months		
TASK	BENCHMARK / DELIVERABLE / MILESTONES	SCHEDULE
1-2	Written summary of QAPP update check	Within 30 days of beginning of new Option Period
1-2	QAPP update, if requested through Technical Direction.	10-15 business days after receipt of written technical direction
2-2	Status calls	Agree on with contractor at Kick-off meeting
2-2	Status call summary	Within 5 days after call
2-3	Monthly progress reports	As specified in contract
2-3	Progress report pre-midyear	NLT 60 days prior to midpoint of new Option Period
2-3	Progress report pre-end of year	NLT 60 days prior to end of Option Period
3-1	Scoping meeting	Within 30 days of new Option Period
3-2	Scoping document	Within 10 days from Scoping Meeting
4-1	Scoping meeting	Within 30 days of new Option Period
4-2	Scoping document	Within 10 days from Scoping Meeting
5-1	Scoping meeting	Within 10 days of EPA TOCOR Request
5-2	Scoping document	Within 10 days from Scoping Meeting
RESEARCH PROJECT DETAILED DELIVERABLES AND MILESTONES		
3-3	Repository of Relevant Documents	Within 30 days of accepted EPA TOCOR Scoping Document (Task 3-2)
3-4	Draft Summary Findings Document	Within 60 days of beginning of each project (defined timeline in Scoping Document – Task 3-2)
3-5	Final Summary Findings Document	Within 120 days of beginning of each project (defined timeline in Scoping Document – Task 3-2)
4-3	Repository of Relevant Documents	Within 30 days of accepted EPA TOCOR Scoping Document (Task 4-2)
4-4	Draft Summary Findings Document	Within 60 days of beginning of each project (defined timeline in Scoping Document – Task 4-2)

4-5	Final Summary Findings Document	Within 120 days of beginning of each project (defined timeline in Scoping Document – Task 4-2)
5-3	Updated Repository of Relevant Documents	Within 15 days of accepted EPA TOCOR Scoping Document (Task 5-2)
5-4	Draft Summary Findings Document	Within 90 days of beginning of each project (defined timeline in Scoping Document – Task 5-2)
5-5	Final Summary Findings Document	Within 180 days of beginning of each project (defined timeline in Scoping Document – Task 5-2)
END OF TABLE		

When the Task Order reaches 30 calendar days prior to the end of the Period of Performance in a given period, the contractor shall make a determination that the deliverables, milestones, benchmarks, and any outstanding technical direction from the TOCOR, will be satisfactorily completed in the form requested in the PWS by the end of the Period of Performance and for the remaining funding that is available.

If the contractor determines one or more of the above-referenced items will not be able to be completed in the requested form within the period of performance and with the available funding, the contractor shall notify the TOCOR and the CO immediately. Within 5 business days of said notification, the TOCOR in coordination with the CO will provide technical direction concerning use of the remaining funding to prepare and furnish to the TOCOR all interim draft deliverables, interim work products, and any working files in an electronic format which is supported by EPA, for eventual continuation of the project after the end date of the Task Order.

D. REPORTING

All documentation and reporting under this Task Order shall be in compliance with contract requirements.

E. DELIVERABLES AND GENERAL PERFORMANCE:

The contractor shall participate in meetings and conference calls arranged by the EPA Task Order Project Officer. The contractor shall, when requested by the TOCOR, provide supporting documentation when EPA is reviewing draft deliverables to facilitate EPA review and approval of the Contractor's work. Documentation shall include the electronic files and detailed, written explanation of all steps and decisions. The Contractor shall comply with this request when it is received from the TOCOR regardless of whether such a request is described in the individual tasks of this PWS. The Contractor shall furnish this information in such manner that no proprietary software will be needed for EPA to read, interpret, replicate or model any work product of this agreement, unless otherwise noted in this PWS or by written permission of the EPA TOCOR. The objective is that anyone with the appropriate skill level can use the information produced under this Task Order to check or duplicate the Contractor's work for replication and/or verification. With this understanding of how this Task Order's data will be used, any elements essential to successfully replicating analysis shall be provided to EPA in a commonly-used format.

The Contractor shall provide both scientific/technical and editorial review as defined in section 2.6 of the Prime Contract Performance Work Statement on any Task Order **draft** product before submission to the EPA TOCOR for review. This process does not need to be performed by an independent peer reviewer. All editorial review comments shall be addressed before deliverables are furnished to the EPA TOCOR for review (in the case of draft deliverables) or acceptance (in the case of final deliverables); and any questions raised by scientific/

technical review shall be either addressed or discussed with the EPA TOCOR prior to the contractor furnishing draft deliverables.

Upon receipt of written technical direction from the TOCOR, the contractor shall furnish:

- **all deliverables (draft and final) to EPA shall be furnished in an electronic version** and in an electronic format that EPA can support (see TSAWP Contract PWS section on Deliverables).
- **all final deliverables to EPA shall include one (1) electronic copy and a transmittal email that describes the attached deliverable and summarizes QA procedures applied in its development.** All final deliverables shall be prepared according to EPA publication guidelines and shall be compliant with Section 508 of the **Americans with Disabilities Act**. All electronic and information technology (eit) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/>. The contractor shall include documentation which indicates that the contractor has tested the deliverable against applicable Section 508 Standards.

All submittals to EPA shall be formatted as described below.

Electronic submissions shall be made in the following manner: electronic Microsoft Word© for any written reports, summaries or analysis documents, Microsoft Excel© format for any and all spreadsheets, ESRI file Geodatabase (or other format approved by the EPA TOCOR) for geospatial datasets. **Final electronic submissions** shall be on Compact Disk (CD) or Digital Versatile Disc (DVD) if too large to email as attachments or deliver via FTP. Every electronic document and all of the sections, text, graphs, charts or figures shall be unlocked, open and editable so that EPA may make further changes.

Appropriate electronic format that is supported by EPA and printing of all GIS data layers, maps, photos, bench sheets and other written material not easily printed or saved in the above formats shall be discussed and a format agreed upon with the EPA TOCOR prior to submittal by the contractor.

F. ANTICIPATED TRAVEL

All travel under this Task Order shall be in compliance with contract requirements and only according to specific Technical Direction. (See contract clause H-17). Travel is presently anticipated to be necessary for two onsite events involving two contractors, in each state RPS project, unless otherwise directed by the TOCOR.

G. CONTRACTOR IDENTIFICATION

Contractor personnel shall always identify themselves as Contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative.

The Contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the EPA Task Order Project Officer.

H. CONFERENCE/MEETING GUIDELINES AND LIMITATIONS:

The EPA projects that none of the individual meetings identified in these tasks will exceed a total cost of \$25,000. No conferences shall occur under this Task Order. The contractor shall immediately notify the EPA

Contracting Officer, PO and TOCOR of any anticipated individual event involving support for a meeting that may potentially incur \$23,000 or more in cost during performance. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

I. QUALITY ASSURANCE SURVEILLANCE PLAN: per contract requirements

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 5	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
P00001		See Block 16C		PR-CAD-19-00100			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
CAD							
US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001							
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
CADMUS GROUP, INC., THE Attn: (b)(4) 100 5TH AVENUE SUITE 100 WALTHAM MA 02451				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO.			
				EP-C-17-044			
				68HERC19F0046			
				10B. DATED (SEE ITEM 13)			
				12/21/2018			
CODE 101163731		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
See Schedule							
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Bilateral - FAR 1552.217-71; Option to Extend the Term on the Contract						
E. IMPORTANT: Contractor <input type="checkbox"/> is not <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
DUNS Number: 101163731							
The purpose of this modification is to 1) Exercise Option Period 1; 2) Shift \$30,000 from the Base Period to Option Period 1 ((b)(4)) to fee) and; 3) Revise EPA-G-42-101 Contract Administration Representatives.							
TOCOR: Rosaura Conde Max Expire Date: 08/02/2023 Invoice Approver: Rosaura Conde Alt Invoice App: Carol Peterson							
LIST OF CHANGES:							
Reason for Modification: Exercise an Option							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Lawrence Edelmann			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				 (Signature of Contracting Officer)		ELECTRONIC SIGNATURE 07/10/2019	

REFERENCE NO. OF DOCUMENT BEING CONTINUED
EP-C-17-044/68HERC19F0046/P00001

PAGE	OF
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ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>Buyer changed from Lisa Mitchell-Flinn</p> <p>to Lawrence Edelman</p> <p>Contracting Officer changed from Angela Lower</p> <p>to Lawrence Edelman</p> <p>CHANGES FOR LINE ITEM NUMBER: 1 Obligated Amount for this Modification: -\$30,000.00 Incremental Funded Amount changed from \$0.00 to \$55,665.00</p> <p>CHANGES FOR ACCOUNTING CODE: 19-20-B-87FN-000BD4-2505-1987NE9001-001 Amount changed from \$85,665.00 to \$55,665.00</p> <p>CHANGES FOR LINE ITEM NUMBER: 2 Obligated Amount for this Modification: \$30,000.00 Incremental Funded Amount changed from \$0.00 to \$30,000.00 Exercised option</p> <p>NEW ACCOUNTING CODE ADDED: Account code: 19-20-B-87FN-000BD4-2505-1987NE9001-001 Beginning FiscalYear 19 Ending Fiscal Year 20 Fund (Appropriation) B Budget Organization 87FN Program (PRC) 000BD4 Budget (BOC) 2505 Job # (Site/Project) Cost Organization DCN-LineID 1987NE9001-001 Quantity: 0 Amount: \$30,000.00 Percent: 34.57735 Subject To Funding: N Payment Address:</p> <p>Continued ...</p>				

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	EP-C-17-044/68HERC19F0046/P00001	3	5

NAME OF OFFEROR OR CONTRACTOR
CADMUS GROUP, INC., THE

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 Period of Performance: 12/21/2018 to 08/02/2020 Change Item 0001 to read as follows (amount shown is the total amount): 0001 BASE PERIOD for CWA SECTION 303(d) PROGRAM SUPPORT in accordance with the attached PWS. Accounting Info: 19-20-B-87FN-000BD4-2505-1987NE9001-001 BFY: 19 EFY: 20 Fund: B Budget Org: 87FN Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 1987NE9001-001 Funding Flag: Partial Funded: -\$30,000.00 Change Item 0002 to read as follows (amount shown is the total amount): 0002 OPTION PERIOD I CWA SECTION 303(d) PROGRAM SUPPORT in accordance with the attached PWS. Accounting Info: 19-20-B-87FN-000BD4-2505-1987NE9001-001 BFY: 19 EFY: 20 Fund: B Budget Org: 87FN Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 1987NE9001-001 Funding Flag: Complete Funded: \$30,000.00 . All other terms and conditions remain unchanged.				

LOCAL CLAUSES EPA-B-32-101 LIMITATION OF FUNDS NOTICE – BASE PERIOD

(a) Pursuant to the Limitation of Funds clause, incremental funding in the amount of (b)(4) is allotted to cover estimated cost. Funding in the amount of (b)(4) is provided to cover the corresponding increment of base fee. The amount allotted for costs is estimated to cover the contractor's performance through **05/14/2019**.

(b) When the contract is fully funded (i.e. the sum of the total estimated cost, base fee, award fee pool available for award, and award fee awarded, as set forth in the schedule of this contract), the Limitation of Cost clause shall become applicable.

(c) Recapitulation of Funds

EP-C-17-044; TO F0046			
Base Period - (12/21/2018 -08/02/2019)			
	Estimated Cost	Fixed Fee	Cost Plus Fixed Fee
Contract Award	(b)(4)		\$85,665.00
Modification P00001			(\$30,000.00)
Total Funded			\$55,665.00
Total Task Order			\$85,665.00
Balance Unfunded			\$30,000.00

LOCAL CLAUSES EPA-B-16-102 ESTIMATED COST AND FIXED FEE – BASE PERIOD

(a) The estimated cost of this contract is (b)(4)

(b) The fixed fee is (b)(4)

(c) The total estimated cost and fixed fee is **\$85,665.00**

LOCAL CLAUSES EPA-B-32-101 LIMITATION OF FUNDS NOTICE – OPTION PERIOD 1

(a) Pursuant to the Limitation of Funds clause, incremental funding in the amount of (b)(4) is allotted to cover estimated cost. Funding in the amount of (b)(4) is provided to cover the corresponding increment of base fee. The amount allotted for costs is estimated to cover the contractor's performance through **12/07/2019**.

(b) When the contract is fully funded (i.e. the sum of the total estimated cost, base fee, award fee pool available for award, and award fee awarded, as set forth in the schedule of this contract), the Limitation of Cost clause shall become applicable.

(c) Recapitulation of Funds

EP-C-17-044; TO F0046			
Option Period 1 (4/1/2019 -3/31/2020)			
	Estimated Cost	Fixed Fee	Cost Plus Fixed Fee
Modification P00001	(b)(4)		\$30,000.00
Total Funded			\$30,000.00
Total Task Order			\$86,762.00
Balance Unfunded			\$56,762.00

LOCAL CLAUSES EPA-B-16-102 ESTIMATED COST AND FIXED FEE – OPTION PERIOD 1

(a) The estimated cost of this contract is (b)(4)

(b) The fixed fee is (b)(4)

(c) The total estimated cost and fixed fee is **\$86,762.00**

LOCAL CLAUSE EPA-G-42-101 CONTRACT ADMINISTRATION REPRESENTATIVES

Task Order Contracting Officers Representatives (CORs)/Project Officers for this contract are as follows:

Task Order COR (TOCOR): Rosaura Conde, conde.rosaura@epa.gov PH (202)-566-1514

Alternate Task Order COR (Alt TOCOR): Carol Peterson, peterston.carol@epa.gov PH 202-566-1304

Contracting Officials responsible for administering this contract are as follows:

Contracting Officer: Lawrence Edelmann, US EPA. Cincinnati Procurement Operations Division, 26 W MLK Dr MS W136A, Cincinnati, Ohio 45268 cdelmann.lawrence@epa.gov

Contracts Specialist: Lawrence Edelmann, US EPA. Cincinnati Procurement Operations Division, 26 W MLK Dr MS W136A, Cincinnati, Ohio 45268 cdelmann.lawrence@epa.gov

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES	
				1 3	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.	
P000002		See Block 16C		PR-OW-19-00425	
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)	
CAD				CODE	
CAD					
US Environmental Protection Agency					
26 West Martin Luther King Drive					
Mail Code: W136					
Cincinnati OH 45268-0001					
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)		(x)		9A. AMENDMENT OF SOLICITATION NO.	
CADMUS GROUP INC THE					
Attn: (b)(4)				9B. DATED (SEE ITEM 11)	
100 5TH AVENUE					
SUITE 100				10A. MODIFICATION OF CONTRACT/ORDER NO.	
WALTHAM MA 02451		x		EP-C-17-044	
				68HERC19F0046	
				10B. DATED (SEE ITEM 13)	
				12/21/2018	
CODE 101163731		FACILITY CODE			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended.					
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required)					
See Schedule Net Increase: \$56,762.00					
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.					
CHECK ONE					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
D. OTHER (Specify type of modification and authority)					
X Unilateral - FAR 53.232-22; Limitation of Funds					
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)					
DUNS Number: 101163731					
The purpose of this modification is to provide incremental funding of \$56,762.00 to Option Period 1 ((b)(4) fee).					
.					
TOCOR: Rosaura Conde Max Expire Date: 08/02/2023 InvoiceApprover: Rosaura Conde Alt Invoice App: Carol Peterson					
LIST OF CHANGES:					
Reason for Modification: Funding Only Action					
Continued ...					
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
		Lawrence Edelmann			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA	
(Signature of person authorized to sign)				ELECTRONIC SIGNATURE	
				07/18/2019	
Previous edition unusable				STANDARD FORM 30 (REV. 11/2016)	
				Prescribed by GSA FAR (48 CFR) 53.243	

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	EP-C-17-044/68HERC19F0046/P00002	2	3

NAME OF OFFEROR OR CONTRACTOR
CADMUS GROUP, INC., THE

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>Obligated Amount for this Modification: \$56,762.00</p> <p>CHANGES FOR LINE ITEM NUMBER: 2</p> <p>Obligated Amount for this Modification: \$56,762.00</p> <p>Incremental Funded Amount changed from \$30,000.00 to \$86,762.00</p> <p>NEW ACCOUNTING CODE ADDED:</p> <p>Account code:</p> <p>19-20-B-87FN-000BD4-2505-1987NE9004-001</p> <p>Beginning FiscalYear 19</p> <p>Ending Fiscal Year 20</p> <p>Fund (Appropriation) B</p> <p>Budget Organization 87FN</p> <p>Program (PRC) 000BD4</p> <p>Budget (BOC) 2505</p> <p>Job # (Site/Project)</p> <p>Cost Organization</p> <p>DCN-LineID 1987NE9004-001</p> <p>Quantity: 0</p> <p>Amount: \$56,762.00</p> <p>Percent: 65.42265</p> <p>Subject To Funding: N</p> <p>Payment Address:</p> <p>Payment:</p> <p>RTP Finance Center</p> <p>US Environmental Protection Agency</p> <p>RTP-Finance Center (AA216-01)</p> <p>109 TW Alexander Drive</p> <p>www2.epa.gov/financial/contracts</p> <p>Durham NC 27711</p> <p>Period of Performance: 12/21/2018 to 08/02/2020</p> <p>.</p> <p>All other terms and conditions remain unchanged.</p>				

LOCAL CLAUSES EPA-B-32-101 LIMITATION OF FUNDS NOTICE – OPTION PERIOD 1

(a) Pursuant to the Limitation of Funds clause, incremental funding in the amount of (b)(4) is allotted to cover estimated cost. Funding in the amount of (b)(4) is provided to cover the corresponding increment of base fee. The amount allotted for costs is estimated to cover the contractor's performance through **08/02/2020**.

(b) When the contract is fully funded (i.e. the sum of the total estimated cost, base fee, award fee pool available for award, and award fee awarded, as set forth in the schedule of this contract), the Limitation of Cost clause shall become applicable.

(c) Recapitulation of Funds

EP-C-17-044; TO F0046			
Option Period 1 (08/03/2019 – 08/02/2020)			
	Estimated Cost	Fixed Fee	Cost Plus Fixed Fee
Modification P00001	(b)(4)		\$30,000.00
Modification P00002			\$56,762.00
Total Funded			\$86,762.00
Total Task Order			\$86,762.00
Balance Unfunded			\$0.00

LOCAL CLAUSES EPA-B-16-102 ESTIMATED COST AND FIXED FEE – OPTION PERIOD 1

(a) The estimated cost of this contract is (b)(4)

(b) The fixed fee is (b)(4)

(c) The total estimated cost and fixed fee is **\$86,762.00**

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 4	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
P000003		See Block 16C		PR-OW-19-00527			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
CAD							
CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001							
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
CADMUS GROUP, INC., THE Attn: (b)(4) 100 5TH AVENUE SUITE 100 WALTHAM MA 02451							
				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. EP-C-17-044 68HERC19F0046			
				10B. DATED (SEE ITEM 13) 12/21/2018			
CODE 101163731		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule							
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) Bilateral - FAR 52.243-2; Supplemental Agreement						
E. IMPORTANT: Contractor <input type="checkbox"/> is not <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
DUNS Number: 101163731							
The purpose of this modification is to revise the PWS to add 350 LOE hours/\$32,257.00 to Option Period 1 and 350 hours/\$32,814.00 to Option Period 2.							
. TOCOR: Rosaura Conde Max Expire Date: 08/02/2023 Invoice Approver: Rosaura Conde Alt Invoice App: Carol Peterson LIST OF CHANGES: Reason for Modification: Supplemental Agreement for work within scope							
Total Amount for this Modification: \$65,071.00							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Lawrence Edelmann			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				 (Signature of Contracting Officer)		ELECTRONIC SIGNATURE 09/05/2019	

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	EP-C-17-044/68HERC19F0046/P00003	2	4

NAME OF OFFEROR OR CONTRACTOR
 CADMUS GROUP, INC., THE

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	New Total Amount for this Version: \$240,158.00 New Total Amount for this Award: \$507,288.00 CHANGES FOR LINE ITEM NUMBER: 2 Total Amount changed from \$86,762.00 to \$119,019.00 CHANGES FOR LINE ITEM NUMBER: 3 Total Amount changed from \$88,325.00 to \$121,139.00 Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 Period of Performance: 12/21/2018 to 08/02/2020 . All other terms and conditions remain unchanged.				

1552.217-71 OPTION TO EXTEND THE TERM OF THE CONTRACT-COST-TYPE CONTRACT (APR 1984)

The Government has the option to extend the term of this contract for four (4) additional period(s). If more than 30 days remain in the contract period of performance, the Government, without prior written notification, may exercise this option by issuing a contract modification. To exercise this option within the last 30 days of the period of performance, the Government must provide to the Contractor written notification prior to that last 30-days of the period. This preliminary notification does not commit the Government to exercising the option. Use of an option will result in the following contract modifications:

(a) The "Period of Performance" clause will be amended to cover a base period and option periods:

	Period Start Date	End Date
Base Period	Award	– 08/02/2019
Option Period 1	08/03/2019	– 08/02/2020
Option Period 2	08/03/2020	– 08/02/2021
Option Period 3	08/03/2021	– 08/02/2022
Option Period 4	08/03/2022	– 08/02/2023

(b) Paragraph (a) of the "Level of Effort" clause will be amended to reflect a new and separate level of effort of:

Period	Level of Effort
Base Period	1000
Option Period 1	1350
Option Period 2	1350
Option Period 3	1000
Option Period 4	1000

(c) The "Estimated Cost and Fixed Fee" clause will be amended to reflect increased estimated costs and fixed fee for each option period as follows:

Period	Estimated Cost	Fixed Fee	Total CPFF
Option Period 1	(b)(4)		\$119,019
Option Period 2			\$121,139
Option Period 3			\$89,919
Option Period 4			\$91,546

(d) If the contract contains "not to exceed amounts" for elements of other direct costs (ODC), those amounts will be increased as follows: N/A

LOCAL CLAUSES EPA-B-16-102 ESTIMATED COST AND FIXED FEE – OPTION PERIOD 1

(a) The estimated cost of this contract is (b)(4)

(b) The fixed fee (b)(4)

(c) The total estimated cost and fixed fee is **\$119,019.00**

LOCAL CLAUSES EPA-B-32-101 LIMITATION OF FUNDS NOTICE – OPTION PERIOD 1

(a) Pursuant to the Limitation of Funds clause, incremental funding in the amount of (b)(4) is allotted to cover estimated cost. Funding in the amount of (b)(4) is provided to cover the corresponding increment of base fee. The amount allotted for costs is estimated to cover the contractor's performance through **04/25/2020**.

(b) When the contract is fully funded (i.e. the sum of the total estimated cost, base fee, award fee pool available for award, and award fee awarded, as set forth in the schedule of this contract), the Limitation of Cost clause shall become applicable.

(c) Recapitulation of Funds

EP-C-17-044; TO F0046			
Option Period 1 (08/03/2019 – 08/02/2020)			
	Estimated Cost	Fixed Fee	Cost Plus Fixed Fee
Modification P00001	(b)(4)		\$30,000.00
Modification P00002			\$56,762.00
Total Funded			\$86,762.00
Total Task Order			\$119,019.00
Balance Unfunded			\$32,257.00

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

1

3

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER 09/24/2019		2. CONTRACT NO. (If any) EP-C-17-044		6. SHIP TO:	
3. ORDER NO. 68HERC19F0273		4. REQUISITION/REFERENCE NO. PR-R5-19-00304		a. NAME OF CONSIGNEE CAD	
5. ISSUING OFFICE (Address correspondence to) CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001				b. STREET ADDRESS US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136	
				c. CITY Cincinnati	e. ZIP CODE 45268-0001
7. TO: (b)(4)		f. SHIP VIA			
a. NAME OF CONTRACTOR Cadmus Group LLC, The		8. TYPE OF ORDER			
b. COMPANY NAME		<input type="checkbox"/> a. PURCHASE REFERENCE YOUR:		<input checked="" type="checkbox"/> b. DELIVERY Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
c. STREET ADDRESS 100 5TH AVENUE SUITE 100		Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.			
d. CITY WALTHAM	e. STATE MA	f. ZIP CODE 024518727			
9. ACCOUNTING AND APPROPRIATION DATA See Schedule		10. REQUISITIONING OFFICE CAD			
11. BUSINESS CLASSIFICATION (Check appropriate box(es)) <input type="checkbox"/> a. SMALL <input checked="" type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. SERVICE-DISABLED VETERAN-OWNED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM <input type="checkbox"/> h. EDWOSB					12. F.O.B. POINT
13. PLACE OF		14. GOVERNMENT B/L NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) 12/31/2021	
a. INSPECTION Destination	b. ACCEPTANCE Destination			16. DISCOUNT TERMS	

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: 101163731 This task order award is a result of RFP PR-R5-19-00304. Wisconsin Fox River (Illinois) Monitoring Project -Total Phosphorus (TP), Total Suspended Solids (TSS) and Dissolved Ortho Phosphates (DOP) Continued ...					
18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOTAL (Cont. pages)
21. MAIL INVOICE TO:						
a. NAME RTP Finance Center		\$174,125.00				17(i) GRAND TOTAL
b. STREET ADDRESS (or P.O. Box) US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts		\$174,125.00				
c. CITY Durham		d. STATE NC	e. ZIP CODE 27711			

22. UNITED STATES OF AMERICA BY (Signature)

09/24/2019

ELECTRONIC SIGNATURE

23. NAME (Typed)
Lawrence Edelmann
TITLE: CONTRACTING/ORDERING OFFICER

ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

PAGE NO
2

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER 09/24/2019	CONTRACT NO. EP-C-17-044	ORDER NO. 68HERC19F0273
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ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
0001	<p>in accordance with the PWS. TOCOR: Christine Urban Max Expire Date: 12/31/2021 Invoice Approver: Christine Urban Alt Invoice App: Colin Geisenhoffer Admin Office: CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001 Period of Performance: 09/24/2019 to 12/31/2021</p> <p>Wisconsin Fox River (Illinois) Monitoring Project -Total Phosphorus (TP), Total Suspended Solids (TSS) and Dissolved Ortho Phosphates (DOP)</p> <p>Accounting Info: 19-20-B-87FT-000BD4-2505-1987TE9012-00 1 BFY: 19 EFY: 20 Fund: B Budget Org: 87FT Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 1987TE9012-001 Funding Flag: Complete Funded: \$174,125.00</p>				174,125.00	

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$174,125.00

LOCAL CLAUSE EPA-F-12-101 PERIOD OF PERFORMANCE

The period of performance of this contract shall be from Award through 12/31/2021 inclusive of all required reports.

EPAAR 1552.237-72 KEY PERSONNEL. (APR 1984)

(a) The Contractor shall assign to this contract the following key personnel:

Monitoring Project Manager: (b)(4)

Project Field Personnel: (b)(4)

(b) During the first ninety (90) days of performance, the Contractor shall make no substitutions of key personnel unless the substitution is necessitated by illness, death, or termination of employment. The Contractor shall notify the Contracting Officer within 15 calendar days after the occurrence of any of these events and provide the information required by paragraph (c) of this clause. After the initial 90-day period, the Contractor shall submit the information required by paragraph (c) to the Contracting Officer at least 15 days prior to making any permanent substitutions.

(c) The Contractor shall provide a detailed explanation of the circumstances necessitating the proposed substitutions, complete resumes for the proposed substitutes, and any additional information requested by the Contracting Officer. Proposed substitutes should have comparable qualifications to those of the persons being replaced. The Contracting Officer will notify the Contractor within 15 calendar days after receipt of all required information of the decision on substitutions. This clause will be modified to reflect any approved changes of key personnel.

LOCAL CLAUSE EPA-G-42-101 CONTRACT ADMINISTRATION REPRESENTATIVES

Task Order Contracting Officers Representatives (CORs)/Project Officers for this contract are as follows:

Task Order COR (TOCOR): Christine Urban, urban.christine@epa.gov PH 312-886-3493

Alternate Task Order COR (Alt TOCOR): Colin Geisenhoffer, geisenhoffer.colin@epa.gov PH 312-886-6744

Contracting Officials responsible for administering this contract are as follows:

Contracting Officer: Lawrence Edelmann, US EPA. Cincinnati Acquisition Division, 26 W MLK Dr. MS W136A, Cincinnati, Ohio 45268 edelmann.lawrence@epa.gov

Contract Specialist: Amanda Toole, US EPA. Cincinnati Acquisition Division, 26 W MLK Dr. MS W136A, Cincinnati, Ohio 45268 toole.amanda@epa.gov

**PERFORMANCE WORK STATEMENT, Amendment 1
TASK ORDER - PR-R5-19-00304**

TASK ORDER CONTRACT OFFICER REPRESENTATIVE (TOCOR):

Christine Urban
U.S. EPA
Phone: 312-886-3493
FAX: 312-886-7804
E-mail: urban.christine@epa.gov

ALTERNATE TASK ORDER CONTRACT OFFICER REPRESENTATIVE (Alt-COR):

Colin Geisenhoffer
U.S. EPA
Phone: 312-886-6744
E-mail: geisenhoffer.colin@epa.gov

A. TITLE: Wisconsin Fox River (Illinois) Monitoring Project -Total Phosphorus (TP), Total Suspended Solids (TSS) and Dissolved Ortho Phosphates (DOP)

B. PERIOD OF PERFORMANCE: Task Order Award to December 31, 2021

C. BACKGROUND

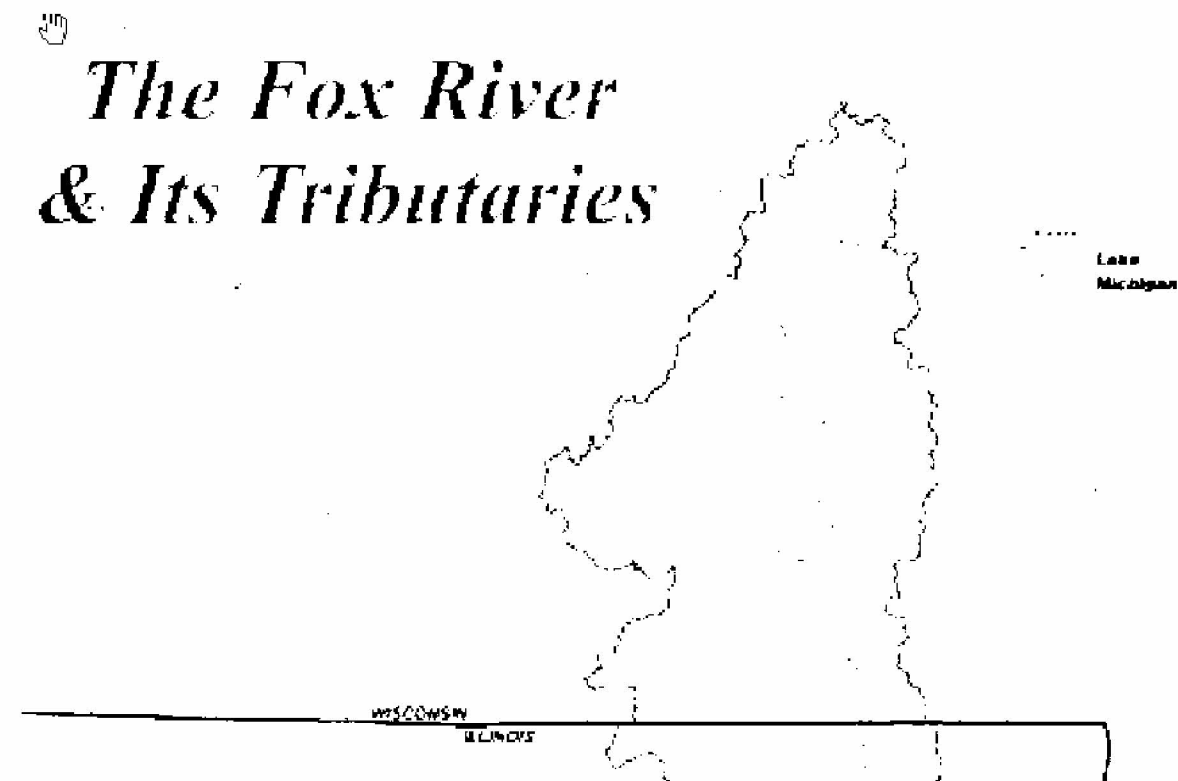
The Fox River basin in Southeastern Wisconsin is located in portions of seven counties, contains entirely or portions of 10 cities, 22 villages, and 42 towns. The basin is home to about 500,000 people. The Fox River headwaters are in the Halbach Swamp, 1 mi (1.6 km) southeast of the community of Colgate, Wisconsin. The Wisconsin Fox River (together with the Illinois portion make up hydrologic unit code 07120006) flows past the communities of: Menomonee Falls, Brookfield, Waukesha Big Bend, Waterford, Rochester, Burlington, Wheatland, Silver Lake and Wilmot, for a total of 84 miles (135 km) in Wisconsin.

Near Tichigan, Wisconsin, just south of Big Bend, the river connects in several small lakes (Buena Lake) and a larger lake named Tichigan Lake. The southern end of this section, Foxwood Isle separates the main dam to its west and a spillway to the east there is a large dam in Waterford and forming a navigable waterway which is one of the busiest in southeastern Wisconsin. There is a small dam further south in downtown Rochester, Wisconsin. The river then flows south and joins the White River around Burlington, and then flows on to Wilmot. The Wisconsin Fox River (Illinois) is a tributary to the Illinois River flows from Wisconsin through Illinois and which is a tributary to the Mississippi.

The Fox River in Wisconsin is a mixture of agriculture and urban land use. Portions of four streams (9.2 total stream miles) and two lakes within the Southeast Fox River basin are designated as outstanding or exceptional resource waters. A number of the Fox River segments in Southeastern Wisconsin are identified on the State of Wisconsin's 2018 303(d) list of impaired waters as requiring a Total Maximum Daily Load (TMDL) because they do not meet the

Wisconsin water quality standard for *Total Suspended Solids (TSS)* and *Total Phosphorus (TP)*. *Dissolved ortho phosphorus (DOP)* data will be used by Wisconsin Department of Natural Resources? (WDNR) to identify appropriate controls and management practices to address the impairments. These three pollutants are the focus of the monitoring described in this Performance Work Statement (TASK ORDER) under the above task order.

Sampling data collected under this task order will help Wisconsin DNR with model calibration when developing TMDLs for the impaired portions of the Fox River Southeastern Wisconsin TMDL. This monitoring project also supports to support efforts to implement the CWA through EPA's Section 303(d) Program Vision.



D. SCOPE of WORK

The Fox (Illinois) River has been identified as the next TMDL project for WDNR under the TMDL Vision process. This monitoring project would collect the water chemistry data for watershed model calibration. The monitoring approach will supplement ongoing monitoring at the two LTT sites and at the USGS gages in the basin. Parameters, including TP, DOP, and TSS, will be collected 8 sites two times a month, for 8 summer months and parameters once per month

for 4 winter months (excluding the first month of the first project year).

E. TASKS FOR WISCONSIN FOX RIVER (LLINOIS) MONITORING for TP, DOP, and TSS

TASK 1: Task Order Kick off Call

Within 10 days of the award of this task order, the contractor shall participate in a conference call with EPA and Wisconsin Department of Natural Resources (WDNR) to discuss the specifics of the task order and to ensure that all parties understand the objectives of the Quality Assurance Project Plan (QAPP), sample collection, and other tasks in the task order. All parties involved in this monitoring project will designate a conference call time once a month to share project progress with the monitoring project team. EPA may schedule additional conference calls as needed. The conference call shall occur to the full satisfaction of EPA and WDNR before the contractor initiates any sampling efforts.

TASK 1: Deliverables

During the kick-off call the contractor and EPA will schedule monthly status calls. These calls will be scheduled at a mutually agreed upon day and time each month for the duration of the project. The contractor will provide meeting notes for the kick off call and each monthly conference call in electronic mail format to the monitoring project team.

TASK 2: Develop a Quality Assurance Project Plan (QAPP)

The information in this task order provides basic information for estimating costs for the project. A Wisconsin DNR sampling SOP is included as a supplement to information in this PWS. The QAPP shall establish the sampling procedures, quality control checks, data management, and reporting which are consistent with requirements set forth in the SOP provided by Wisconsin DNR and Wisconsin's Quality Assurance protocol documents supplied by the EPA-TOCOR. If EPA or WDNR provide written comments on the QAPP the contractor shall make modifications to the QAPP in accordance with these comments within 5 business days of receipt of the comments. If necessary, a conference call shall be scheduled to discuss the comments. If a conference call is held the contractor shall make modifications to the QAPP within 5 business days of the conference call.

TASK 2: QAPP Deliverables

Draft QAPP, Revisions, Final QAPP, and Quality Assurance Summary

If EPA or WDNR provide written comments on the QAPP the contractor shall make modifications to the QAPP in accordance with these comments within 5 business days of receipt of the comments and provide a final QAPP by November 1, 2019. The contractor shall also provide quality assurance summary (QAR) describing how sampling, monitoring, and analysis were conducted in accordance with the QAPP and any problems, issues and necessary corrective measures are taken at the end of the project. The contractor shall submit the summary with the final monitoring report.

TASK 3: Sample Collection and Analysis

Task 3.1 Water Sample Collection

The contractor shall collect samples and have them analyzed by a certified laboratory in accordance with the Wisconsin DNR sampling SOP, approved QAPP and EPA approved methods. The contractor shall collect samples from November 15, 2019 through November 14, 2021. The contractor shall conduct trips to collect a *TP*, *DOP* and *TSS* sample at each of 8 stations listed in Table 1 of this task order. Precipitation records during the sampling period shall be kept.

More site specifics will be provided in the QAPP but in general the monitoring effort for *TP*, *DOP* and *TSS* shall be as follows.

Frequency of Sampling

This TASK ORDER anticipates the collection of 1,056 contaminant and blank samples during the period between November 15, 2019 through November 14, 2021. Each parameter shall be collected in a separate sample container as follows:

- 1 – TP, acid preserved
- 2 – DOP – non-preserved and field filtered
- 3 – TSS larger volume bottle non-preserved

Winter months:

The contractor shall conduct one sampling trip for each of the 4 winter months of the year. During each trip the contractor shall collect 3 contaminant samples, plus blanks, per station for each of 8 stations.

(1 trip per month) x (4 months) = 4 trips for winter (for each of 8 stations)

Non-winter months:

The contractor shall conduct two sampling trips for each of the 8 non-winter months of the year. During each trip the contractor shall collect 3 contaminant samples, plus blanks, per station for

each of 8 stations

$(2 \text{ trips per month}) \times (8 \text{ non-winter months}) = 16 \text{ trips for nonwinter (for each of 8 stations)}$

The total sampling effort for this task order will consist of 20 sampling trips per station.
for each of the 2 sampling years of the project period.

$40 \text{ trips} \times 8 \text{ sites} \times 3 \text{ samples/sites} = 960 \text{ contaminant samples}$

Blanks:

The number of blanks that will be collected as required by the State of Wisconsin's water quality sampling protocol, and as documented in the QAPP. For the purpose of estimating the cost of field blanks, add 1 blank for every 10 samples collected (10%).

The total sampling effort for this task order will consist of 40 sampling trips per station, within the 2-year project period.

$40 \text{ trips} \times 8 \text{ sites} \times 3 \text{ samples/sites} = 960 \text{ contaminant samples}$

$960 \times .1 = 96 \text{ blanks}$

$= 1,056 \text{ samples total}$

Sapling methods to be used:

for TP - EPA 365.1,

for DOP - SM 4500PE,

for TSS - SM2540D.

Geographical Scope of the Project

The water column sampling in the Fox River (IL) in Southeastern Wisconsin will include 8 sample stations. Their locations are listed by latitude and longitude in Table 1 (reproduced from the 2013 FSP) and Figure 1 (reproduced from the FSP 2013) which shows the proposed locations for water column sampling in the Middle and Lower river.

Table 1. Latitude and Longitude for Each Project Monitoring Station

Station ID	Station Name	Water Body Name	Latitude	Longitude
10021230	Fox River Above Rochester Dam	Fox River	42.71505	-88.22442
10032437	Fox River at STH 20/30 Waterford	Fox River	-42.76307	-88.2134
10046937	Fox River at CTH ES	Fox River	42.87569	-88.3065
10010534	Mukwonago River - Upstream of HWY 83	Mukwonago River	42.85642	-88.3289

10040134	Honey Creek 1400ft N of CTH DD/Academy Rd	Honey Creek	42.72292	-88.3111
10029083	Sugar Creek at Potter Road	Sugar Creek	42.71475	88.3418
10012203	White River - 10 M Upstream Of Hwy 36	White River	42.66488	-88.3184
303054	Des Plaines River at 122nd St (CTH ML)	Des Plaines River	42.50208	-87.9256

The contractor shall conduct all sampling, monitoring, and analysis in accordance with protocols established by Wisconsin state water quality standards, operating procedures and quality assurance requirements, as well as required analytical methods established by EPA and the state of Wisconsin.

TASK 3: Deliverables for Sample Collection and Analysis

The contractor shall submit sampling and lab analysis results for the 2019-2020 sample year (November 15, 2019- November 15, 2020) in a draft final report no later than December 30, 2020. The final report should summarize the project, sampling and monitoring efforts, lab analysis, quality assurance issues and how they were resolved, and sampling location maps. Two hard copies of the final report, one electronic copy in Microsoft Word format, and one electronic copy in Adobe PDF, shall be submitted to EPA. Electronic scans of lab analysis, sampling data sheets, and field notes shall be included in the draft report for this time period and may be transmitted with agreement from EPA and Wisconsin DNR. Electronic files containing any sampling data or lab analysis shall also be submitted.

TASK 4: Final Project Report and other Deliverables

The contractor shall all submit sampling and lab analysis results for the project years in a final Draft report no later than December 15, 2021. The final report should summarize the project, sampling and monitoring efforts, lab analysis, quality assurance report, and sampling location maps. Two hard copies of the final report, one electronic copy in Microsoft Word format, and one electronic copy in Adobe PDF, shall be submitted to EPA. Electronic scans of lab analysis, sampling data sheets, and field notes shall be included in the final report and may be transmitted electronically with agreement from EPA and Wisconsin DNR. This information may be included in appendices to the final report. Electronic files containing any sampling data or lab analysis shall also be submitted.

All information shall be finalized and included in appendices to the final report by the December 31, 2021 Deadline.

TASK 5: Monthly Conference Calls and Progress Reports

5.1 Conference Calls

The contractor shall schedule monthly conference calls with EPA and WDNR. During these

monthly conference calls, the contractor shall, at a minimum, provide an update on sampling efforts, identify problems or incidents which could delay completion of the monitoring efforts, and identify any deviations from the monitoring project plan or the QAPP. If requested by EPA, additional conference calls may be necessary.

The contractor shall plan for two follow-up conference calls or meetings with EPA and WDNR after submission of the final report. These conference calls or meetings will be an opportunity for EPA and WDNR to discuss the final report. Any written comments provided by EPA or WDNR on the final report shall be responded

Monthly phone calls with the monitoring team will provide the primary vehicle for identifying when these communications will occur, and the primary purpose and need for communications that occur outside of the presence of the EPA TOCOR. The Contractor may need to communicate with stakeholders and other entities of local, state and federal government to collect the necessary data and information to complete the tasks in this task order. For communications that occur outside of the presence of EPA TOCOR, the Contractor shall clearly identify to the EPA TOCOR, either through an electronic mail or as a resource in a deliverable, when and with whom such technical communications were held. The Contractor at no time shall take any technical direction from anyone other than the EPA TOCOR.

5.2 Monthly Progress Reports

The Contractor shall write and submit monthly progress reports to the EPA TOCOR. Progress reports shall describe completed work during the invoice period and should link to charges described in invoice documentation. The monthly progress reports shall provide the following information:

- Contract and task order number, reporting period, and contact information;
- Progress made during the report period toward completion of deliverables, including those regarding quality assurance;
- Schedule showing completed and upcoming deliverables;
- Projected activity to be completed for the next reporting period;
- Project variances and outstanding issues problems and deviations from the approved Quality Assurance Project Plan, work schedules, impediments encountered, and budget issues.
- An update on sub-Contractor use; and
- Financial status including cost for the reporting period, cost by activity, accumulated costs to date.

E. DELIVERABLES SUMMARY

All written deliverables shall be phrased in layperson language. Statistical and other technical terminology shall not be used without providing a glossary of terms.

TASK	DELIVERABLE	NO. OF COPIES	DUE DATE	Time for Review
1.0	-Kick off Meeting -Schedule monthly status calls -Notes from Kick off call	Electronic	-10 days of the award of this task order -within 5 calendar days of call	EPA draft review within 5 calendar days from receipt
2.0	Draft QAPP	Electronic	No later than 15 Calendar days from award	EPA draft review within 15 calendar days from date of receipt
2.0	Final QAPP	Electronic	5 business days after EPA comments	EPA Final review within 10 calendar days from date of receipt
3.0	Draft 2019-2020 Field Sampling Report	Electronic	No later than 410 Calendar Days from award	EPA draft review within 10 calendar days from date of receipt
4.0	Draft 2019-21 Field Sampling Report	Electronic	No later than 805 Calendar Days from award	EPA draft review within 5 calendar days from date of receipt (810 days)
4.0	Final 2019-21 Field Sampling Summary Report	Electronic	No later than 820 Calendar Days from award	EPA Final review within 15 calendar days from date of receipt
5.0	Monthly Meeting Notes	Electronic	3 business days after each meeting	EPA draft review within 10 calendar days from date of receipt
5.0	Monthly Activity Reports	Electronic	Within three (3) business days of submitting an invoice to EPA	EPA draft review within 10 calendar days from date of receipt

1. For each deliverable submitted electronically, the contractor shall submit electronic copies EPA TOCOR and project manager from WDNR in a format that EPA and WDNR can support. Deliverables shall be submitted through electronic mail, or through another method determined mutually acceptable by the contractor and EPA and WDNR.
2. For each deliverable submitted as a hard copy, the contractor shall submit two (2) hard copies to EPA. Electronic copies of all hard copy deliverables should be made available to EPA.
3. It is anticipated that each deliverable will be submitted in draft by the initial due date unless otherwise noted in this TASK ORDER. EPA, in consultation with WDNR will review the draft deliverables and provide comments. The Contractor shall respond to these comments within ten (10) work days unless otherwise specified in this TASK ORDER or otherwise directed by EPA TOCOR. Initial response to comments can be through electronic mail. Deliverables shall be revised upon direction from EPA TOCOR within a time frame mutually agreed upon by EPA, WDNR and the Contractor, but within at least three (3) work days and no more than 30 work days. EPA in consultation with WDNR will determine whether a deliverable is in an approvable and/or acceptable form. The EPA's determination will be based on the Contractor's clarifications and/or revisions, including any necessary re-submittals. Written direction from the EPA TOCOR can be through electronic mail
4. At the completion of the period of performance, or as requested throughout, the contractor shall provide electronic copies of all project files to EPA in CD-ROM or flash-drive format.

F. GOVERNMENT RESPONSIBILITIES

EPA has responsibility for reviewing and approving reports and final products generated under the contract within the time frames specified and for collating comments on deliverables received from the other members of the Wisconsin Fox River (Illinois) Monitoring Team.

G. TRAVEL

All travel under this Task Order shall be in compliance with contract requirements and only according to specific written technical direction from the TOCOR. The vast majority of interactions will be conducted through conference calls. Expenses for the monitoring trips should be included in cost estimates. When in-person meetings are required, the length of the meetings and the amount of contract personnel needed for each trip will be provided to the contractor through written technical direction from the TOCOR .

H. CONTRACTOR IDENTIFICATION

Contractor personnel shall always identify themselves as Contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative.

Any questions raised by the public regarding EPA policy should be responded to by EPA representatives, not the contractor personnel. If EPA is not available to respond, the contractor shall provide the public with an appropriate agency contact.

I. VALIDATION OF TASK ORDER DELIVERABLES FOR SECTION 508 COMPLIANCE

The Contractor shall support the TOCOR in conducting a "Final Deliverable Validation" to ensure compliance with Section 508 and the Federal Acquisition Regulations (FAR) related to "electronic and information technology (EIT) deliverables". The Contractor shall furnish certification, in writing, to the TOCOR that the Contractor has complied with EPAAR Clause 1552.211-79 "Compliance with EPA Policies for Information Resources Management" (Reference Contract Clause C-1), including the requirement that all electronic and information technology (EIT) deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/> Reference Contract Clause C-1 (c) and Attachment 1, Statement of Work (SOW), Section 2.5.3.4, 3.7, and 4.3.7.

J. NOTIFICATION OF COMPLETION OF TO DELIVERABLES

In the event that the TO reaches thirty (30) days prior to the end of the Period of Performance and the Contractor assesses that the deliverables, benchmarks or milestones will not be able to be completed, the Contractor shall immediately furnish written notification to the EPA TOCOR and the CO/CS.

K. CONTRACTOR EXPERIENCE REQUIREMENTS – KEY PERSONNEL

The following positions are considered "Key Personnel" in support of this contract initiative.

Monitoring Project Manager

Monitoring Project Manager should demonstrate examples of experience leading similar projects.

The Monitoring Project Manager is expected to have received current training, as specified by contractor's Health and Safety Plan.

The Monitoring Project Manager should be versed in procedures (holding times, etc.) used to

process and transport TP, DOP, and TSS water samples, and as described in Published EPA Methods and the *USGS National Field Manual for the Collection of Water-Quality Data*.

Project Field Personnel (Up to 2 Individuals)

Project Field Personnel should demonstrate a clear understanding of project objectives and data quality criteria is necessary to successfully participate in this on-going project.

Field sampling personnel should be experienced in techniques to successfully obtain without contaminating the TP, DOP, and TSS samples.

All field sampling personnel are expected to have received current training, as specified by contractor's Health and Safety Plan.

Field sampling personnel should be versed in procedures (holding times, etc.) used to process and transport TP, DOP, and TSS water samples, and as described in Published EPA Methods and the *USGS National Field Manual for the Collection of Water-Quality Data*.

L. SECURITY REQUIREMENTS:

No special security requirements are anticipated as part of this project.

M. DATA RIGHTS

EPA shall have unlimited rights to and ownership of all deliverables provided under this award, including reports, recommendations, briefings, work plans and all other deliverables including data acquired from the monitoring and analysis activities. This includes the deliverables provided under the basic. In addition, it includes any additional deliverables required by contract change. The definition of "unlimited rights" is contained in Federal Acquisition Regulation (FAR) 27.401, "Definitions." FAR clause 52.227-14, "Rights in Data-General," is hereby incorporated by reference and made a part of this contract/order.

N. SUPPORTING DOCUMENTS AND GUIDANCE

EPA Requirements for Quality Assurance Project Plans (QA/R-5). EPA/240/B-01/003. May 2006. (<http://www.epa.gov/quality/qs-docs/r5-final.pdf>)

"EPA Handbook for Developing Watershed Plans to Restore and Protect Our Waters," EPA 841-B-08-002, March 2008. (http://water.epa.gov/polwaste/nps/handbook_index.cfm)

Data Quality Assessment: A Reviewer's Guide (QA-G-9R). EPA/240/B-06/002. February 2006. (<http://www.epa.gov/QUALITY/qs-docs/g9r-final.pdf>)

"Guidance for Quality Assurance Project Plans for Modeling (QA/G-5M). EPA/240/R-02/007. December 2002. (<http://www.epa.gov/quality/qs-docs/g5m-final.pdf>)

Data Quality Assessment: Statistical Tools for Practitioners (QA/G-9S). EPA/240/B-06/003. February 2006. (<http://www.epa.gov/quality/qs-docs/g9s-final.pdf>)

For more information on data quality guidance, visit EPA's website at www.epa.gov/quality/.

Guidance on Water-Quality-Based Decisions: The TMDL Process. EPA440-4-91-001. April 1991. (http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/decisions_index.cfm)

O. CONFERENCE/MEETING GUIDELINES AND LIMITATIONS:

The Government does not anticipate formal Conferences/Meetings associated with this effort. The contractor shall immediately notify the EPA Contracting Officer, COR and TOPO of any anticipated event involving support for a meeting, conference, workshop, symposium, retreat, seminar or training that may potentially incur \$20,000 or more in cost during performance. Conference expenses are all direct and indirect costs paid by the government and include any associated authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for conference preparation should be included, but the federal employee time for conference preparation should not be included. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

P. TECHNICAL DIRECTION

The Contract level COR or an authorized individual is permitted to provide technical direction. technical direction must be within the statement of work of the contract and includes: (1) Direction to the contractor which assists the contractor in accomplishing the Performance Work Statement, (2) Comments on and approval of reports or other deliverables. technical direction will be issued in writing or confirmed in writing within five (5) calendar days after verbal issuance. One copy of the technical direction memorandum will be forwarded to the Contracting Officer and the Contract Level Contracting Officer Representative.